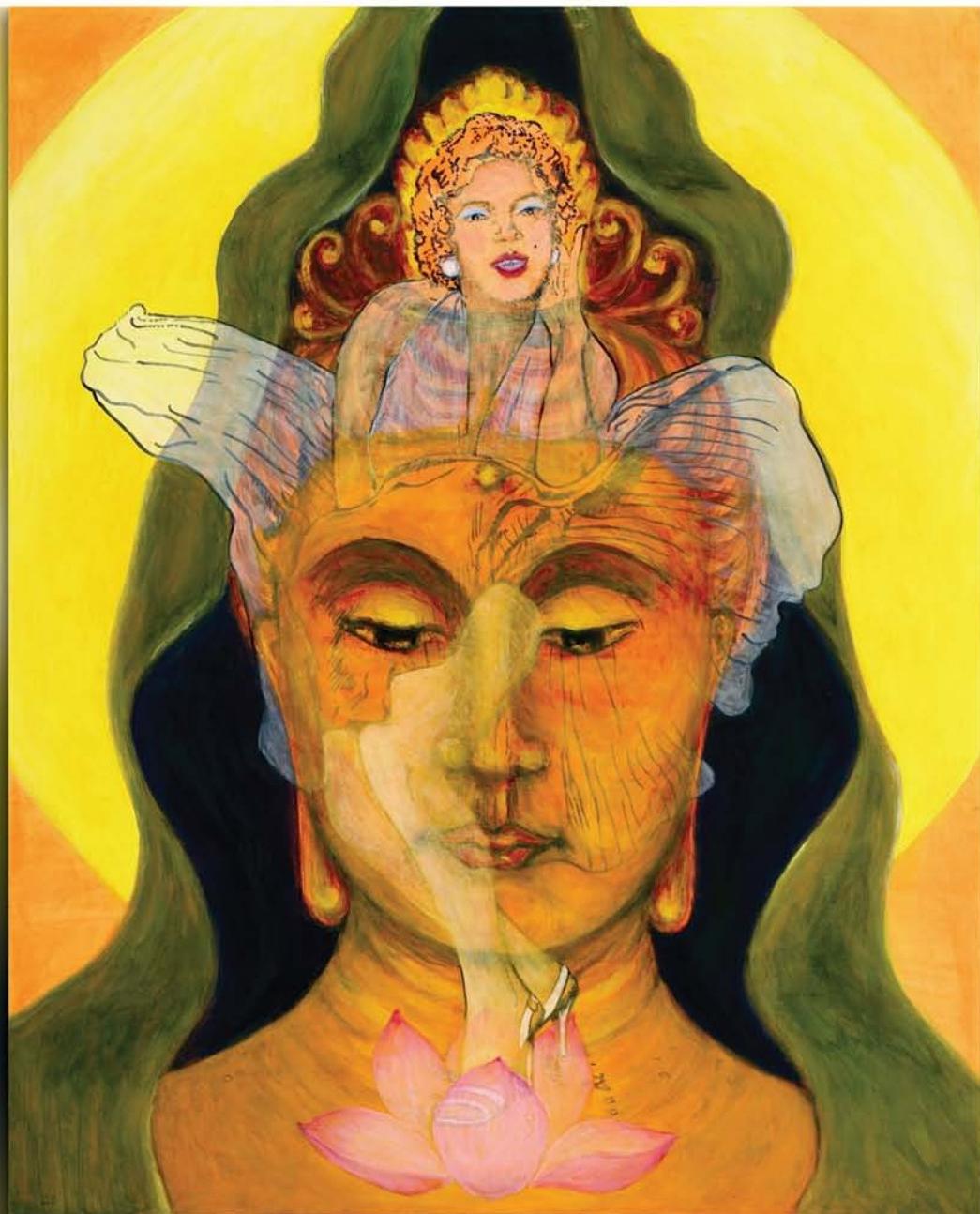


Understanding Culture

Theory, Research, and Application



Edited by

Robert S. Wyer, Chi-yue Chiu, and Ying-yi Hong

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**Robert S. Wyer, Chi-yue Chiu,
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Preface

Thirty-five years ago, when two editors of this volume were only halfway through grade school, the third editor joined a group of University of Illinois social psychologists who believed that the wave of the future in social psychology lay in the development of formal theoretical and quantitative models of social behavior. In an office two doors down, however, there was a big, tall guy who, although having achieved eminence because of his work in the area of attitudes, appeared to be dabbling in a rather strange area that was loosely denoted “culture.” Although the big guy was greatly respected, his work was considered to be at the periphery of the field and quite deviant from the “mainstream” that was believed to be on the social psychological horizon. Although he seemed to accumulate a large number of graduate students, few of us had any idea of what they were doing, either.

Times change. Quantitative social psychology, far from becoming the wave of the future, turned out to be a drop in the bucket that has long since evaporated. At the same time, the big, tall guy, Harry Triandis, has become widely recognized as the father of the most vibrant, active, and potentially important area of psychology to emerge in the past three decades, with implications for not only every area of social science but also international business and marketing. Furthermore, several of Triandis’s students (Michele Gelfand, Yoshihisa Kashima, Kwok Leung, and others) have themselves become internationally recognized scholars in diverse areas of cross-cultural research and theorizing.

The content of this volume, which reflects the breadth and depth of cross-cultural research and theory, also has a history. In 2005, Wilfried Vonhonacker, then the head of the Department of Marketing and Director of the Center for Management and Distribution at the Hong Kong University of Science and Technology, approached us (along with Sharon Shavitt) with a proposal for an international conference about cultural influences on behavior that would cut across areas of psychology, marketing, and organizational behavior and would present work with both theoretical and practical implications. Its primary objective was not to present a group of papers but rather to generate an exchange of ideas among international scholars from diverse backgrounds and perspectives that would establish directions for future research. To this end, 32 internationally recognized scholars were invited to the Hong Kong University of Science and Technology to participate in such a conference. The chapters in this volume testify to the conference’s success.

OVERVIEW

The first 24 chapters, which are divided into five sections, do not simply summarize the conference presentations. Rather, each chapter integrates issues in a particular area, providing a perspective on the area as a whole. Furthermore, the concluding section of the volume presents a series of dialogues among contributors to the volume and other conference participants that represent diverse views on a number of conceptual and methodological issues of concern to the field that emerged from the conference exchanges.

THEORETICAL APPROACHES

The first section concerns a number of diverse theoretical perspectives on the conceptualization of culture and its possible effects. Hong outlines a dynamic constructivist approach, arguing that the norms, values, and behavioral dispositions that characterize a given culture are not static but represent loosely connected bodies of knowledge, the activation and use of which can often depend on their relative accessibility in memory. Thus, biculturals (individuals with extensive exposure to

more than one culture) may have distinct subsets of knowledge, each of which can be independently activated and applied, depending on situational factors that call it to mind.

Oyserman and Sorensen also argue that cultures should not be viewed as stable entities that are localized within a particular society or national group. Rather, cultural syndromes exist that may, in different combinations, pervade several different societies. Thus, cultural research should focus on the determinants and effects of these syndromes rather than on the particular societies in which they predominate. Still another conceptualization is espoused by Yoshihisa Kashima. He argues that many of the general constructs used to characterize cultures (e.g., individualism-collectivism) should not be viewed as characteristics of cultures that have a causal influence on behavior, but rather, as *interpretative* constructs that are used by the theorist to conceptualize phenomena both within and across cultures.

The last two chapters in this section represent still different points of view. Wan and Chiu propose that cultures can be more fruitfully conceptualized, not in terms of the norms, values, and behaviors that actually pervade a society, but rather in terms of the norms and behaviors that representatives believe are typical of the society in which they live. These intersubjective perceptions can be used as a standard relative to which both within- and between-group differences in individuals' actual values and behavior can be defined and potentially explained.

Finally, Markman, Grimm, and Kim argue that cross-cultural comparisons are of heuristic value in identifying differences in behavior that might otherwise not be discovered. However, culture per se is not an explanatory variable, and once these differences are identified and their determinants understood, they may potentially be incorporated into a general theory of human cognition and behavior in which culture itself is not involved.

DIMENSIONS OF CULTURAL VARIATION

The second section contains four sophisticated analyses of the dimensions along which national and cultural groups can vary and the problems associated with their assessment. Bond and Leung provide a broad overview of an approach to mapping beliefs onto societies in a way that has empirical implications for an understanding of cultural similarities and differences. Schwartz provides a theory-based conceptualization of the value dimensions along which national groups differ. Smith identifies two additional response-based characteristics, acquiescence and extremity biases, that are reflected in the responses along numerous dimensions and that, as a consequence, influence the interpretation of cultural differences along these dimensions. However, differences in the characteristics that he discusses can have potentially important implications in their own right.

The approaches outlined in these chapters have their limitations, as the authors themselves acknowledge. Tsui, Nifadkar, and Ou elaborate further on the methodological and conceptual problems associated with measures of cultural variation, focusing on the difficulties that can result from equating cultures with nation-states. However, they propose possible solutions to the problems they identify.

ECOLOGICAL AND DEMOGRAPHIC FOUNDATIONS OF CULTURE

Cultural differences in beliefs, values and behavior can often be traced to environmental factors that required the development of norms for effective survival. This possibility is elaborated in detail by Triandis, who generates over 70 hypotheses concerning the cultural determinants in norms and behaviors that may derive from ecological factors. Two additional chapters, one by Tavassoli and one by Oishi and Kisling, focus more specifically on the influence of two such factors, climate and residential mobility. Finally, Tov, Diener, Ng, Kesebir, and Harter examine social and economic factors that characterize individuals in a society and that predict the happiness and peace-related values that pervade the society.

PSYCHOLOGICAL MANIFESTATIONS OF CULTURE

The fourth section of the volume focuses on cognitive, perceptual, motivational, and emotional factors that underlie cultural differences in behavior. Semin examines the way in which differences in the linguistic description of a social action can influence the implications that are drawn from it. The next two chapters deal largely with nonverbal and paralinguistic differences. Matsumoto finds that the facial expressions that are spontaneously elicited by a particular emotion are uncontrolled and therefore may generalize over cultures. Furthermore, the emotion conveyed by such a spontaneous expression can be universally recognized. However, it is important to distinguish between the uncontrolled expressions of an emotion and the controlled expressions that occur in response to social demands. Moreover, although the expression that is spontaneously elicited by an underlying emotional state may be universal, the situational conditions that give rise to the display of emotion may vary across cultures. Consequently, the facial expression that these conditions elicit may vary correspondingly.

Furthermore, as Wang, Toosi, and Ambady note, people acquire different cultural “dialects” for transmitting and interpreting emotional expressions. As a result, individuals can identify the emotions expressed by representatives of their own culture more accurately than of other cultures. Correspondingly, they can more accurately identify members of their own culture from their nonverbal behavior than they can identify members of another culture. This may be true not only of facial expressions but also of gestures and other paralinguistic behaviors.

Two other chapters focus on cross-cultural differences in motivation. Lee and Semin, for example, explore differences in self-regulatory mechanisms and the relative emphasis placed on the pursuit of positive consequences of a behavioral decision as opposed to the avoidance of negative consequences. Briley analyzes the differences in individuals’ reactions to the passage of time and its motivational implications.

BICULTURAL AND INTERCULTURAL PROCESSES

In an earlier chapter, Hong examines the role of biculturalism in explicating a dynamic constructivist approach to culture, focusing on the way in which biculturals’ knowledge is represented in memory. Ng and Han now examine this matter in more detail, drawing on both memory data and neuropsychological evidence in explicating the difference between monocultural and bicultural individuals’ representations of themselves and others. Although Ng and Han focus on the cognitive consequences of biculturalism, Friedman and Liu focus on its social implications for managers and leaders. They draw upon literature in many areas of research to analyze the way biculturalism can enhance the social and cognitive flexibility of people at work. Their analysis has implications for teamwork, leadership, and problem solving for domestic as well as international organizations.

Two other chapters also examine the factors that influence the adjustment to different cultures and intercultural communication more generally. Sedikides, Wildschut, Routledge, Arndt, and Zhou raise the interesting possibility that nostalgia has a beneficial effect on acculturation. That is, it allows immigrants to maintain positive feelings and identity with their home culture, thus increasing their ability to cope with the stress of adjusting to a new environment. Brislin focuses more directly on the types of miscommunication that occur between individuals with different cultural backgrounds. He recommends the use of a “cultural assimilator” to sensitize individuals to the behavior of others and notes how others are likely to react to them.

The last two chapters in this section focus on cultural differences in the interaction processes that characterize cultures that differ in the value attached to independence and interdependence. Bagozzi, Verbeke, and Belschak analyze the antecedents of both pride and shame in these cultures and the different ways in which these emotions are expressed, pointing out the quite different roles they play in social interaction and the different effects they can have on task performance that requires these interactions.

Finally, Leung and Brew analyze the effects of a particular cultural difference that arises in the context of interpersonal conflict resolution. That is, Western negotiators focus on the outcome of a negotiation, whereas Asian negotiators attach importance to the negotiation process itself, thus emphasizing harmony and the avoidance of disruptive interpersonal relations as well as the outcome of the interaction. This difference in emphasis, like those identified by Brislin and others, can obviously contribute to miscommunication and misunderstanding across cultures.

SUMMARY, INTEGRATION AND DIALOGUES

The main section of the volume concludes with two chapters, one by Wyer and one by Chiu and Chao, which attempt to provide a conceptual integration of many of the themes developed in the previous chapters.

The volume ends with a provocative series of dialogues on central issues that pervade theory and research in cultural psychology. The dialogue contains responses to a series of seven questions that were addressed both to the authors of the volume and to other participants in the 2006 conference concerning (1) the relevance of psychological studies of culture to national development and national policies, (2) the relationship between macro structures of a society and shared cognitions, (3) how structural and process models can be integrated into a coherent theory of culture, (4) how personal experience and cultural traditions interact to give rise to regional variations within a national culture, (5) whether culture can be validly measured by self-reports, (6) the new challenges and frontiers that confront cultural psychology, and (7) whether cultural psychology should strive to eliminate culture as an explanatory variable. Fourteen scholars have contributed to the discussion of one or more of these questions. In combination, the dialogues provide a unique interchange of ideas among some of the foremost leaders of the field, who set important directions for future research and theorizing.

About the Editors

Robert S. Wyer, Jr. is a visiting professor at the Hong Kong University of Science and Technology and Professor (Emeritus) at the University of Illinois, Urbana-Champaign. His research interests cut across numerous areas of social information processing, including knowledge accessibility, comprehension, memory, social inference, the impact of affect on judgment and decisions, attitude formation and change, and consumer judgment and decision making. Dr. Wyer is the author or coauthor of four books, the most recent being *Social Comprehension and Judgment* (Erlbaum, 2004). He is the editor of several others including the *Handbook of Social Cognition* (Erlbaum) and the *Advances in Social Cognition* (Erlbaum) series. Wyer is a former editor of the *Journal of Experimental Social Psychology* and the *Journal of Consumer Psychology*. He is a recipient of the Alexander von Humboldt Special Research Prize for Distinguished Scientists, the Thomas M. Ostrom Award for Distinguished Contributions to Person Memory and Social Cognition, and the Distinguished Scientific Contribution Award from the Society for Experimental Social Psychology.

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Section I

Theoretical Approaches

1 A Dynamic Constructivist Approach to Culture

Moving from Describing Culture to Explaining Culture

Ying-yi Hong

Every science passes through a phase in which it considered its basic subject matter to be some sort of substance or structure. Fire was identified with phlogiston; heat with caloric; and life with vital fluid. Every science has passed beyond that phase, recognizing its subject matter as being some sort of process; combustion in the case of fire; random thermal motion in the case of heat; and certain kinds of far from thermodynamic equilibrium in the case of life.

Bickhard, 2004, p. 122

Importantly, Bickhard (2004) submits that causality resides in the processes, not the substances. We can draw a parallel development to the study of culture. Early cultural research focused on describing the unique characteristics of people from different nations, such as the study of “national characters” (see review of this history by LeVine, 2001). This type of research focused on the differences or similarities between national and racial/ethnic groups. It treated cultures as monolithic entities that are static and attributed differences or similarities between cultures to traits that are deeply rooted within the national or ethnic groups belonging to those cultures. According to this approach, as long as a given group possesses certain characteristics, its members should inevitably display the corresponding patterns of responses. Unfortunately, these early assumptions seldom provided an understanding of the processes through which culture influences affect, cognition, and behaviors.

Inspired by Bickhard’s (2004) insight, I propose to move from describing culture to explaining culture. That is, I hope to understand the *causal mechanism* through which culture impacts individuals’ affect, cognition, and behavior. To this end, my colleagues and I have proposed a dynamic constructivist approach (Hong, Morris, Chiu, & Benet-Martínez, 2000; Hong & Chiu, 2001). In this chapter, I extend this approach in several important ways: First, I identify the key components in the processes and delineate the causal mechanisms involved. Second, I provide a methodological road-map for studying cultural influences, using my own program of research to illustrate each methodological step. Third, I address the boundary conditions in which individuals’ beliefs and motivations may accentuate or attenuate the influences of culture. Finally, I highlight the key characteristics of the dynamic constructivist approach and contrast these characteristics against the situated cognition model espoused by Oyserman and Sorenson (this volume).

THE DYNAMIC CONSTRUCTIVIST MODEL

The dynamic constructivist model initially focuses on the dynamics through which specific pieces of cultural knowledge (lay beliefs) become operative in guiding the construction of meaning from a stimulus. Over the years, we have extended the model to address the general process of cultural influence. Here, I further furnish the model with four postulates: (a) Physical and human-made

environments foster the relative prevalence of certain knowledge. (b) This knowledge becomes *shared* among members of a group when it is recruited for building the common ground in communication and when it is transmitted across generations; this process underpins the formation of culture. (c) Because of frequent usage in communication, the shared knowledge becomes chronically accessible in the mind of individual members; this chronically accessible shared knowledge then establishes a mindset through which individuals derive meaning, which in turn shapes their cognition, affect, and behavior; this process underpins the causal effect of culture. (d) Upon being exposed to two cultural groups, the individual can acquire the shared knowledge of both cultures; either set of shared knowledge can become activated in the mind of the bicultural individual by certain contextual cues, and the activated knowledge set will affect the individual's subsequent cognition, affect, and behavior. In the following discussion, I will flesh out the premises of these postulates.

DEFINITION OF CULTURE

To begin, we define culture as *networks of knowledge*, consisting of learned routines of thinking, feeling, and interacting with other people, as well as a corpus of substantive assertions and ideas about aspects of the world (Barth, 2002; see Chiu & Hong, 2007, for a review). Importantly, culture as a knowledge tradition is unique in that it is (a) shared (albeit incompletely) among a collection of interconnected individuals, who are often demarcated by race, ethnicity, or nationality; (b) externalized by rich symbols, artifacts, social constructions, and social institutions (e.g., cultural icons, advertisements, and news media); (c) used to form the common ground for communication among members; (d) transmitted from one generation to the next or from old members to new members; and (e) undergoing continuous modifications as aspects of the knowledge tradition may be falsified or deemed not applicable by newer social order and reality.

Defining culture as networks of shared knowledge helps to differentiate culture from a group of people and hence prevents conflating culture with racial, ethnic, or national groups. Also, the definition makes it clear that the *causal potential* of culture does not reside in the racial, ethnic, or national groups, although these types of groups are carriers and agents of cultures. Rather, the networks of shared knowledge are activated in a probabilistic (vs. discrete or categorical) manner within certain ethnic or national groups in certain social contexts (see elaboration on the association process, following). The causal potential of culture resides in the *activation* of the shared cultural knowledge, which brings about affective, cognitive, and behavioral consequences. This point is crucial as it contests against the treatment of culture as a deep-rooted essence of certain groups, thereby reducing the risk of *essentializing* the groups.

ANTECEDENTS OF SHARED CULTURAL KNOWLEDGE

Where does the shared cultural knowledge come from? Why would it be found among certain ethnic or cultural groups but not others? These questions are difficult to answer. Ecology has a lot to do with it (see Triandis, this volume) and has been shown to affect the rise and fall of societies in human history (Diamond, 1999).

Nisbett (2003) has argued that different modes of subsistence in ancient China and Greece gave rise to different "folk metaphysics," or beliefs about the nature of the social and physical world, that were carried over into the modern age. Specifically, the large number of fertile plains in China encouraged agriculture and made centralized control of society relatively easy. According to Nisbett (2003), "Agricultural people need to get along with one another... the Chinese had to look outward toward their peers and upward toward authorities. The habit of looking toward the social relations could have extended to an inclination to attend to relations of all kinds" (p. 35). In contrast, the ecology of ancient Greece favored hunting, herding, fishing, and trade, and these economic activities did not strictly require living in the same stable community with other people. The Greeks were

therefore able to act on their own and focused on the attributes of objects to a greater extent than did the Chinese.

Historian Ray Huang (1997), however, has offered an alternative analysis of how traditional culture in ancient China developed. After analyzing a vast amount of archival data, Huang concluded that the distribution of precipitation in China created two major ecological systems. The dry and desert-like climate in Northern China favored hunting and herding that supported highly geographically mobile tribes, whereas the more humid climate in the Central Plains of China favored agriculture that supported relatively stable and affluent communities. These ecological differences resulted in an unequal distribution of wealth, such that the agricultural communities accumulated more wealth than did the herding tribes. The herding tribes often invaded the agricultural communities for their wealth. As a result, the agricultural communities banded together to form a powerful central government and fortified the authority of the emperor so as to mobilize resources to defend against invasion (e.g., building the Great Wall and engaging in wars). In the process, the emperor and the ruling class recruited Confucian philosophy and other cultural knowledge and practices to justify their legitimacy and absolute power. This historical analysis implies that the ecology of a region per se does not dictate the development of culture. Rather, it is an interaction of ecology and power dynamics between and within groups that may render certain strategies and knowledge-tradition optimal for achieving group fitness.

CHARACTERISTICS OF SHARED CULTURAL KNOWLEDGE

A number of characteristics of shared knowledge are noteworthy. First, *the shared knowledge is not static* but is constantly emerging and evolving as a result of socio-political and other types of changes in the society. As noted, people who face different challenges in their environment (e.g., invasion by neighboring tribes) are likely to develop different networks of shared knowledge in order to cope with the challenges. However, although the history of a group may leave “imprints” on the shared knowledge of the people, these imprints can wane or wax over time, depending on whether the shared knowledge can help the group solve newly emerging problems or, in some situations, help the dominant group maintain the status quo. For example, Chen, Cen, Li, and He (2005) examined elementary school children’s social functioning and adjustment in three cohorts (1990, 1998, and 2002) in Mainland China. While shy children in the 1990 cohort were more well-adjusted than their less shy peers, this positive association became nonsignificant in the 1998 cohort. Strikingly, the association was reversed in the 2002 cohort, such that shyness was associated with peer rejection, school problems, and depression.

These cohort differences could be due to a change in shared values regarding the desirable behaviors among children in light of the rapid social changes occurring in Mainland China. It is possible that shy, wary, and socially restrained behaviors were once compatible with traditional Chinese values; therefore, shy children were well accepted by peers and teachers. As Mainland China has rapidly transformed into a market-oriented economy in the past decade, extraverted and self-expressive behaviors may have become more acceptable, winning over shy and socially restrained behaviors. In fact, in the “Outline of the Educational Reform,” the Ministry of Education of China has called for a variety of modifications to China’s educational goals and methods. So as to keep up competitively with the globalizing society, a new educational goal is to help children develop better social skills, such as the expression of personal opinions, self-direction, and self-confidence. As such, social changes seem to bring about corresponding changes in shared values regarding desirable behaviors.

Similarly, in the work domain, Mainland Chinese and Japanese were once accustomed to working in the same work unit or company for life. These arrangements may indeed have fostered a shared belief of a fixed social world. With the breakdown of lifetime employment and a rapid increase in job mobility in both Mainland China and Japan, this belief has been revised. In short, some facets or domains of shared knowledge inevitably change in response to social changes that

affect those domains. Shared knowledge, therefore, is not static. Moreover, to the extent that social changes are not uniform in different domains, the shared knowledge within those domains may undergo a different rate of change. As a result, the shared knowledge within a country at any one time may not have a coherent internal structure, but rather may be loosely linked.

Second, *the shared knowledge may consist of two types: declarative and procedural*. Declarative knowledge in general includes concepts, values, beliefs, and lay beliefs about the self, other people, and the social world. Well-researched examples are independent and interdependent self-construals (Markus & Kitayama, 1991) and beliefs about disjoint versus conjoint agency (Markus, Uchida, Omoregie, Townsend, & Kitayama, 2006). Procedural knowledge in general includes “know how”—that is, the behavioral scripts, practices, and routine processes. To the extent that these processes are frequently used by group members, they may become automatic and spontaneous without the actor’s conscious awareness. One example of procedural knowledge is reflected in the relative attention that individuals pay to the focal object and context (background) in visual perception tasks. It has been found that North Americans have a greater tendency to focus on the focal object (and less on the context) than East Asians do (Masuda & Nisbett, 2001). Another example of procedural knowledge lies in the spontaneous categorization of objects. Consider categorizing these items: “cow,” “pig,” and “grass.” North Americans would tend to categorize “cow” and “pig” together, because both are animals, whereas Chinese would tend to categorize “cow” and “grass” together because cows eat grass. That is, it has been found that North Americans are more likely to categorize based on taxonomy, whereas Chinese more commonly categorize based on thematic relations between objects (Ji, Zhang, & Nisbett, 2004).

Declarative and procedural knowledge can give rise to certain chronic motivational states (fear of isolation, Kim & Markman, 2006; Markman, Grimm, & Kim, this volume; prevention versus promotion focus, Lee, Aaker, & Gardner, 2000). For example, in comparison to those who define the self as an autonomous entity, individuals who define the self as embedded in social relations may experience more anxiety when isolated from the group, and thus may display a greater fear of isolation (see Markman et al., this volume).

Third, *networks of knowledge may not be completely shared or evenly distributed within a “cultural group”* (cf. Sperber, 1996). The distribution of knowledge may follow the processes stipulated by social impact theory (Latané, 1996; Latané & L’Herrou, 1996). Latané and colleagues have shown that people who are geographically (spatially) proximal are more likely to communicate and to influence one another, thereby resulting in clusters of similar attitudes among people who are in geographic proximity. It seems reasonable to expect that knowledge is more likely to be shared among members who are in close proximity or have frequent communication (e.g., via the Internet). This logic seems to be the case, as Schwartz (this volume) found that people from neighboring nations often share similar patterns of value endorsements.

Another process stipulated by social impact theory concerns how individuals differ in terms of their influential power in shaping others’ opinions. Those who possess power are likely to become “opinion leaders” and are at the forefront of creating clusters of opinions or attitudes. Again, this seems to be the case for shared cultural knowledge, as well. Often times, those who are in power will gain control over the media and education, thereby enjoying the privilege of shaping the shared knowledge in the group. Similarly, members of a majority group often have more power, compared to members of minority groups, in creating historical narratives that favor their group (Liu et al., 2005). In short, power is an important dimension underlying the contents and perceived legitimacy of the shared cultural knowledge.

Aside from social impact theory, Lyons and Kashima (2001) have also simulated processes of knowledge sharing and maintenance using a serial reproduction paradigm. Specifically, in their study, participants were asked to reproduce a story in a serial manner. That is, the first person who read the story told it in his/her own words to a second person, who in turn told the story to a third person, and so on. The researchers found that participants were more likely to maintain the stereotype-consistent information (which presumably is widely shared knowledge) than stereotype-

inconsistent information (which presumably is not widely shared) down the serial reproduction chain, suggesting that the shared knowledge may be more likely to be recruited and maintained during communication within a cultural group. As such, the shared knowledge is perpetuated and eventually becomes a *shared reality* for the group.

Fourth, it is important to recognize that *individuals play an active (rather than a passive) role in acquiring, maintaining, and enacting the shared knowledge*. Because the shared knowledge is often closely tied to life experiences, it may be used to define a person's self and identity. This may especially be true of individuals who have only been exposed to the shared knowledge of one group, and consequently take this knowledge for granted. It may also be true when cultural tightness is high (that is, when social norms are clear and pervasive in a society, and deviations from these norms are forbidden and punished; see Gelfand, Nishii, and Raver, 2006). Nonetheless, it is also common to find some individuals (often labeled as "deviants" or "rebels") who choose to defy and reject the shared knowledge in a cultural group or to critically challenge it.

Also, the enactment of shared knowledge can be affected by identification processes. On the one hand, people who endorse the shared values of a cultural group are also likely to identify with this group. For example, Wan et al. (2007) have shown that students who endorse the shared values of the student body become more strongly identified with the student body over time. On the other hand, under contexts in which the group identity is salient, people who identify with the group may display values, beliefs, and behaviors that are consistent with the shared knowledge of the group—an effect known as self-stereotyping. Chiu et al. (1998), for example, found that when participants' gender identity is made salient to them, they spontaneously behave in a more feminine or masculine way in communication. Similarly, Jetten, Postmes, and McAuliffe (2002) also showed that college students who highly identify with their peer group of the same major behave in ways that are consistent with the expected normative characteristics of their group. Few researchers, however, have linked social identity process to cultural psychology. Later in this chapter, it will become apparent that social identity processes are an integral part of cultural influences, especially with regards to biculturalism.

THE PRINCIPLES OF KNOWLEDGE ACTIVATION

As noted, I have posited that the causal potential of culture resides in the *activation* and *cognitive accessibility* of the networks of shared knowledge in a cultural group. To understand this process, it is important to discuss the three principles of knowledge activation: availability, accessibility, and applicability (Higgins, 1996; Wyer & Srull, 1986). *Availability* refers to whether certain knowledge is available in the individual's cognitive repertoire. It is possible that some knowledge that is widely shared among members of a group may not be shared (or even known) among members of another group. Superstitious beliefs are a good example. For instance, the beliefs that the number 8 is lucky and 4 is unlucky are widely shared among Chinese but not among North Americans (Siy, 2008). A recent newspaper article noted that a young businessman in Guangzhou, China, bid 54,000 yuan (almost seven times the country's per capita annual income) for a lucky license plate APY888. Indeed, without having knowledge of this shared belief that so many Chinese hold, it would be rather difficult for people in other cultures to understand why such a license plate was so highly valued. Similarly, people moving to a new country, such as immigrants and sojourners, often report "culture shock" (Ward, Bochner, & Furnham, 2001). That is, because their existing knowledge system is very different from that which is shared by members of their host country, many immigrants and sojourners will experience uncertainty and confusion. This initial culture shock should be alleviated once individuals acquire the shared knowledge of the new culture.

Often times, however, shared cultural knowledge is not discrete across cultures. That is, different cultures may hold similar sets of knowledge, but they may differ in how frequently they use this knowledge. To the extent that the more widely shared knowledge is used more frequently in one group than in another, it becomes more *chronically accessible* in the minds of members of this group. For example, research (e.g., Gardner, Gabriel, & Lee, 1999; Trafimow, Triandis, & Goto,

1991) has shown that while both independent and interdependent self-construals co-exist among East Asians and North Americans, an independent self-construal is typically more accessible for North Americans, and an interdependent self-construal is more accessible for East Asians. Despite the differences in chronic accessibility, however, the two self-construals can be temporarily activated in both cultures via experimental cues. For example, asking participants to circle “I” and “me” in an essay increases the accessibility of their independent self-construal, and asking these same participants to circle “we” and “us” increases the accessibility of their interdependent self-construal (see Oyserman & Lee, 2008, for a review of different methods and effects of activating independent versus interdependent self-construals). As such, *temporary accessibility* can trump chronic accessibility. In sum, networks of shared cultural knowledge are endorsed by different ethnic or national groups in a probabilistic, rather than discrete or categorical, manner.

Finally, *applicability* refers to the perceived relevance of applying the most accessible constructs to the task at hand. Although some constructs may be accessible in memory, they are unlikely to be used if individuals do not think that they are relevant to the task at hand. For example, Wong and Hong (2005) have activated Hong Kong Chinese bicultural participants’ Chinese cultural knowledge by presenting them with pictures of Chinese cultural icons. Interestingly, this manipulation only increased cooperation in a subsequent Prisoner’s Dilemma game when the participants played the game with friends but not with strangers. Thus, although the exposure to Chinese cultural icons increased participants’ motivation to cooperate, the activated motivation was only deemed applicable when interacting with friends (see Leung & Bond, 1984, for evidence of in-group versus out-group differentiation among Chinese groups).

CONSEQUENCES OF ACTIVATING SHARED CULTURAL KNOWLEDGE

Given that it is deemed applicable, the most accessible shared cultural knowledge will impact participants’ subsequent judgments and behaviors—hence, the *causal mechanism* of cultural influences on affect, cognition, and behavior. For example, experimentally activating individuals’ independent self-construals (by asking participants to circle “I” and “me” in an essay) causes them to display behaviors that are typically found among North Americans. That is, this experimental manipulation increased the number of personality traits that participants provided in their self-descriptions (Gardner et al., 1999) and led them to focus on local rather than global aspects of stimuli (Kühnen & Oyserman, 2002). Correspondingly, activating individuals’ interdependent self-construals (by asking participants to circle “we” and “us” in an essay) increases their tendency to display behaviors that are typically found among East Asians. That is, this particular experimental manipulation increased the inclusion of social roles into participants’ self-descriptions and led them to focus on global rather than local aspects of stimuli.

ACTIVATION OF CULTURAL KNOWLEDGE AMONG BICULTURAL INDIVIDUALS

Through extensive exposure to two different cultural knowledge traditions, individuals can acquire both sets of cultural knowledge and are capable of using one or the other, depending upon contextual cues. As a result, bicultural individuals may switch between the two cultural frames (cultural frame-switching) in different contexts (Hong et al., 2000). The psychological mechanism that underlies cultural frame-switching also follows the aforementioned principles of knowledge availability, accessibility, and applicability (Higgins, 1996; Wyer & Srull, 1986). First, people who have been exposed to multiple cultures will acquire those knowledge networks and will have the networks available to them in their cognitive repertoire. Given their availability, the associated cultural knowledge networks will be activated and will become temporarily accessible through priming (i.e., exposing individuals to cultural symbols or icons). As a result of priming, bicultural individuals may switch between different cultural mindsets and may think, feel, or behave in ways that are consistent with the most accessible cultural knowledge tradition.

To examine this phenomenon experimentally, my colleagues and I have conducted a series of laboratory studies (Hong, Chiu, & Kung, 1997; Hong et al., 2000; Hong, Benet-Martínez, Chiu, & Morris, 2003). For example, in one experiment, Chinese-American bicultural individuals (Hong Kong Chinese, Chinese Americans) were primed with either Chinese (e.g., the Chinese dragon, the Great Wall) or American icons (e.g., the Statue of Liberty, Capitol Hill). After being primed with Chinese (versus American) cultural icons, the participants were more inclined to interpret an ambiguous event in a typically Chinese (versus American) way: they made more group attributions and fewer individual attributions. Similar cultural priming effects have been found across different psychological domains, such as spontaneous self-construal (Ross, Xun, & Wilson, 2002), cooperative behaviors (Wong & Hong, 2005), representations about work and family (Pouliasi & Verkuyten, 2007), and inclusion of others in one's self-representation (Ng & Han, this volume). In addition, the effect has also been replicated in studies using different bicultural samples (e.g., Chinese-Canadians, Dutch-Greek bicultural children) with a variety of cultural primes (e.g., language, experimenter's cultural identity; Ross et al., 2002; Verkuyten & Pouliasi, 2002).

Although the activation of cultural knowledge appears to be spontaneous, it is important to note that it is not a "knee-jerk response" to situational cues. In accordance with the principle of knowledge activation, the evoked cultural frame will be appraised for its applicability to the immediate context before it is applied. That is, an accessible cultural idea will not have any influence over individuals' judgments or behaviors unless it is applicable to the task at hand. In the domain of judgment, for example, Chinese-American biculturals are more likely to apply a group (versus individual) perspective to interpret an event when they are primed with Chinese cultural icons than when they are primed with American cultural icons (Hong et al., 2000). However, this effect occurs only when this perspective is applicable to the current judgment context (Hong et al., 2003) or meets the individual's epistemic need (Fu et al., 2007). Similarly, in a Chinese context, a cooperative (versus competitive) script is applicable only when interacting with friends, but not when interacting with strangers. Consequently, Chinese icons activated cooperation when the Hong Kong Chinese bicultural participants played a Prisoner's Dilemma game with friends but not strangers (Wong & Hong, 2005).

In sum, these findings attest to the dynamic nature of cultural processes. Culture does not rigidly determine human behaviors, nor are individuals passive recipients of their cultural environment. Instead, individuals flexibly shift their responses and use culture as a cognitive resource for grasping their experiences.

METHODOLOGICAL IMPLICATIONS: A ROAD MAP TO STUDYING CULTURAL INFLUENCES

Extrapolating from the dynamic constructivist model, I propose four steps in studying cultural influences. These steps are illustrated in Figure 1.1. First, because culture is defined as networks of knowledge that are shared among a group of individuals, it is logical to identify the knowledge (values, beliefs, lay theories) that is prevalent and widely shared in a cultural group. Similarly, to understand cross-cultural differences, it is crucial to identify distinctive values, beliefs and lay theories that are differentially endorsed by the target groups. For example, North Americans believe more strongly in individual agency and autonomy than do East Asians, whereas East Asians believe more strongly in group agency and obligations toward the group than do North Americans (e.g., Hong, Ip, Chiu, Morris, & Menon, 2001).

Second, if two groups endorse certain knowledge to a different extent, the two groups should also display the outcomes that are associated with the knowledge to a different extent. For example, believing in individual or group agency should bring about different patterns of attributions of social events. Specifically, a belief in individual (versus group) agency should orient perceivers to attribute the cause of social events to the internal dispositions of the target actor, while a belief in group

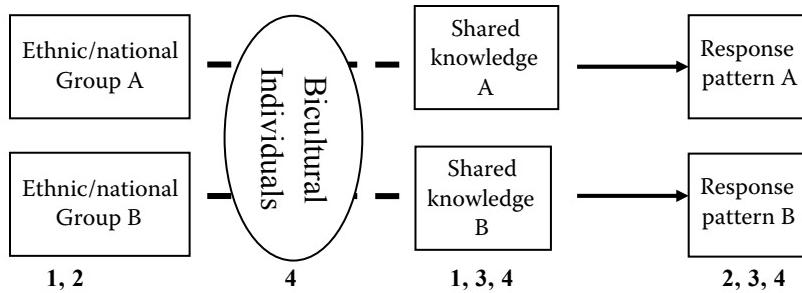


FIGURE 1.1 The four steps in the roadmap to study cultural influences. Note: The numbers denote the steps that a particular component was involved in the road map.

(versus individual) agency should orient perceivers to attribute the cause of social events to the internal dispositions of the social group. If North Americans are more likely than Chinese to hold a belief in individual (versus group) agency, and Chinese are more likely than North Americans to hold a belief in group (versus individual) agency, then North Americans should make greater internal attributions about an individual target than should Chinese, who in turn should make greater internal attributions about a group target. Indeed, these patterns were found in previous research (Chiu, Morris, Hong, & Menon, 2000; Menon, Morris, Chiu, & Hong, 1999). In short, there should be cross-cultural differences in the responses that correspond to the hypothesized shared values, beliefs, or lay theories.

Third, to establish the causal role of the values, beliefs, and lay theories, it is important to show that priming the hypothesized values, beliefs, or lay theories will give rise to the corresponding outcome responses. Any cross-cultural differences found in the second step, above, are arguably only correlational, not causal in nature. To establish a causal role, researchers need to prime the hypothesized values, beliefs, or lay theories experimentally and observe the subsequent responses. If the hypothesized values, beliefs, or lay theories indeed play a causal role, the resulting response pattern should correspond to the cross-cultural pattern as observed in step 2, above. For example, Oyserman and her colleagues (see review by Oyserman & Sorensen, this book) have experimentally activated independent or interdependent self-construals and found that participants subsequently behave in a more typical East Asian or North American manner.

Fourth, establishing the causal role of the shared knowledge does not completely test the dynamic nature of cultural influences. The last step involves testing whether the symbols or icons of the two cultures will prime the endorsement of the hypothesized values, beliefs, or lay theories and their corresponding responses among bicultural individuals. This step is crucial because it fulfills two important goals that other steps have not achieved. First, to the extent that the cultural icons can increase the temporary accessibility of the associated shared knowledge, there is indeed a unified, coherent cultural knowledge representation in the individuals' minds (although this unified, coherent cultural knowledge may not necessarily exist in reality; a similar point was argued in the semiotic model proposed by Kashima, this book). This representation is not implicated in regular priming research (or in the priming procedures taken in step 3), as the priming procedures used to activate self-construals (circling "I" versus "we") and other culture-related constructs (family honor versus individual achievement; Trafimow et al. 1991) usually do not have symbolic associations with a demarcated group and are arguably devoid of cultural meaning.

The second goal step 4 fulfills is that by randomly exposing bicultural individuals to symbols or icons of one of the two cultures, we can rule out alternative causes for the subsequent response differences between the cultural priming conditions. That is, due to random assignment, we would be able to pin down the causal role of cultural activation in subsequent response differences across cultural priming conditions. This is a substantial improvement over comparing samples drawn from

two cultural groups who may differ across a myriad of variables (e.g., educational levels, general wealth of the country, ecological environment). Without random assignment to condition, it would be difficult to pinpoint the sources that give rise to seemingly established cross-cultural differences.

A DEMONSTRATION: CULTURAL INFLUENCES ON THE COLLECTIVE SELF

In this section, I use one of my programs of research to demonstrate the four steps outlined above.

STEP 1: IDENTIFY THE LAY BELIEFS THAT ARE DIFFERENTIALLY SHARED BY TWO NATIONAL GROUPS

Over a period of twelve years, my colleagues and I have surveyed a few thousand North American and Chinese college students on their lay beliefs about the malleability of the social world (see Dweck, Chiu, & Hong, 1995; Hong, Levy, & Chiu, 2001). The between-group differences in these beliefs are consistent and robust. Chinese perceive the social world and its institutions as more fixed than do North Americans. It is interesting to interpret these differences in combination with the participants' lay beliefs about the malleability of individual personality. Chinese participants typically believe that an individual's personality is more malleable than the social world, making it more plausible for the individual to modify the self so as to accommodate the fixed structure of the social group, rather than the other way around. By contrast, North Americans typically believe that the social world is more malleable than individual personality, making it plausible for the individual to actively change the social world to meet his or her interests and preferences. As a metaphor, the building of a wall illustrates these two processes (Su et al., 1999):

One method (analogous to Chinese social organization) is to build sections of the wall from the pile of stones that are closest, to use the largest pieces as building blocks and the smaller stones to fill the crevices between. Usually, the stones do not have the appropriate dimensions, so most have to be shaped to certain standard configurations to fit into the structure. Another way of building (analogous to U.S. social organization) sacrifices design to preserve the idiosyncratic contours of individual rocks. Rocks that naturally complement each other in shape are stacked together, so that there is no need for reshaping. To improve fit, rocks have to be transferred from one pile to another, and the blueprint for construction often changes to accommodate the building materials (p. 196).

Given these differences, Chinese and North Americans should also have very different conceptions of their collective self. Research (Cousins, 1989; Rhee, Uleman, & Lee, 1996) has shown that when asked to complete sentences that start with the stem "I am" (on the Twenty Statement Task; Kuhn & McPartland, 1954), North Americans are more likely than East Asians to generate individual traits (e.g., outgoing, smart), whereas East Asians are more likely to generate contextual characteristics and social roles (e.g., talkative with friends, my mother's daughter). These findings suggest that East Asians' self-construals are more embedded in social contexts than are North Americans'. Moving beyond these findings, Hong et al. (2001) designed an experiment to test participants' representations of the collective (national) self. A group of Hong Kong Chinese college students, North American college students, and Chinese American college students were asked to write sentences beginning with the stems "I, being a/an Chinese/American" and "We, being Chinese/Americans." Results showed that while the North American participants generated more individual rights (e.g., "I/We, being an American/Americans, have the right to vote"), the Chinese participants generated more obligations and responsibilities (e.g., "I/We, being a Chinese, is/are obliged to help build a strong nation"). Interestingly, Chinese Americans switched their collective self-construal as a function of the type of sentence stem, such that their responses were similar to those of the Chinese participants when they completed a sentence that referred to being Chinese and were similar to those of the American participants when they completed a sentence that referred to being an American. These results suggest that Chinese place more

emphasis on *fulfilling obligations towards the group*, while North Americans place more emphasis on *exercising individual rights*.

STEP 2: EXAMINE THE RAMIFICATIONS OF LAY BELIEF ENDORSEMENT

If Chinese and North Americans indeed endorse different beliefs about group obligations and individual rights, then we should also observe cross-national differences in the corresponding outcomes. To test this idea, we (Hong, Lee, & Zhang, 2006) compared participants' responses toward collective shame induction in the two national groups. To elaborate, Gaertner, Sedikides, and Graetz (1999, Study 2) asked a sample of female North American undergraduate students to complete a test that allegedly assessed moodiness. Then, in the *individual feedback* condition, the participants were told that their own score was significantly worse than the national average, thereby inducing a negative evaluation of the participant's individual self. In the *collective feedback* condition, the participants were told that the average score of the undergraduate students in their school (before including the participant's own score) was significantly worse than the national average, thereby inducing a negative evaluation of the participant's collective self (i.e., being a student in the university). Subsequently, participants were asked how much they identified as a unique individual (individual self) or with the student body (collective self). Participants who received individual feedback identified more with their collective self than with their individual self in order to buffer themselves against the negative evaluation of the individual self. However, analogous effects were not found when the collective self was threatened, indicating that a threat toward the collective self did not elicit a shift toward the individual self for use in buffering. Taken as a whole, the American participants appear to be more motivated to defend against threat toward the individual self than threat toward the collective self. This suggests that for Americans the collective self is less primary than the individual self.

Given the differences between Chinese and North Americans' beliefs about the malleability of social institutions, as well as their differential emphasis on their collective self-construal, it is reasonable to predict that Chinese would be more affected by a threat to their collective self than would North Americans. In particular, because Chinese emphasize fulfilling obligations toward the group, they would not feel morally right in abandoning the group even when the group is negatively evaluated.* Instead, in the face of a negative evaluation of the group, Chinese participants should feel obliged to improve the group or help the group to overcome the negative evaluation; as a result, Chinese should increase their identification with the group.

To test these ideas, we recruited a group of Chinese college students from Peking University in Beijing and a group of North American (Caucasian) undergraduate students from the University of Illinois at Urbana-Champaign (Hong et al., 2006, Study 1). Participants in each national group were randomly assigned to either the experimental or the control condition. For participants in the experimental condition, we induced negative feelings of shame about their collective national identity by asking them to recall two incidents that made them feel ashamed of being a Chinese (for the Chinese participants) or an American (for the American participants). Next, we assessed participants' level of collective self-esteem and individual self-esteem. To measure collective self-esteem, we used Luhtanen and Crocker's (1992) measure, which consisted of items measuring private esteem (e.g., "I feel good being a Chinese/an American"), self-definition (e.g., "Being a Chinese/an American is an important part of who I am"), public esteem (e.g., "Overall, Chinese/Americans are considered good by others") and contribution (e.g., "I am a worthy member of my group [Chinese/American]"). To

* It should be noted that Gaertner et al. (1999, Study 4) had attempted to test whether or not culture made a difference in motivational primacy of the individual self and the collective self. The researchers concluded that the individual self served as the more primary form of self-definition, regardless of participants' levels of individualism and collectivism. However, since only American college students were included in the study and only their scores on Singelis's self-construal scale were used to test the effects of culture, it is unclear whether the study has adequately tested the effects of culture on individual primacy and collective primacy.

measure individual self-esteem, we used Rosenberg's (1965) self-esteem scale (e.g., "On the whole, I am satisfied with myself"; "I feel that I have a number of good qualities"). The order of the collective self-esteem and individual self-esteem measures were counter-balanced across participants. Participants in the control condition filled out the collective self-esteem and individual self-esteem scales without recalling any shameful incidents.

Because Chinese participants are more concerned about fulfilling group obligations than are American participants, they should identify more strongly with their national group and should value their collective identity even more strongly after recalling shameful incidents. Thus, Chinese participants should exhibit a higher level of collective self-esteem in the experimental condition than in the control condition. By contrast, American participants should not show an increase in collective self-esteem in the experimental condition (compared with American participants in the control condition), as they should emphasize the individual self more than the collective self. In this way, we predicted that American participants would be able to insulate themselves from the induced shame in the collective.

The findings in general supported our predictions. First, American participants showed generally higher individual self-esteem than Chinese participants did, which was consistent with previous cross-national findings (Schmitt & Allik, 2005). In contrast, Chinese participants showed significantly higher collective (national) self-esteem than did the American participants, which makes sense in light of our argument. Also, in general, American participants showed a significantly higher level of individual self-esteem than collective self-esteem, whereas Chinese participants showed a higher level of collective self-esteem than individual self-esteem, supporting the contention that North Americans emphasize the individual self ("individual primacy") and Chinese emphasize the collective self ("collective primacy").

More importantly, Chinese participants' collective self-esteem was significantly higher in the experimental than in the control condition, while their individual self-esteem did not significantly differ between the two conditions. In contrast, American participants' collective self-esteem was not significantly affected by the shameful recall, but their individual self-esteem tended to be higher in the experimental than in the control condition. These findings show that the Chinese and North American participants indeed displayed patterns of responses that were consistent with their differential emphasis on individual rights versus collective obligations.

What shameful events did the participants recall? Were there any cross-cultural differences in the types of incidents recalled by the participants? Following are examples of the shameful events recalled by the American participants:

When the current war in Iraq began I felt ashamed. We as Americans decided to police the world. War violates the ideals by which this country was founded.

I went to an Indian Reservation in South Dakota. I went to the site of Wounded Knee, where Custer massacred Indians. I was ashamed for what was done to the Indians and for being an American.

I was ashamed when the Dixie Chicks showed a lack of support for the war in Iraq while they were in a different country. They also cursed the president. Regardless of what they believe, they shouldn't behave that way.

I was ashamed when America became obsessed with President Clinton's social life. I did not believe the story deserved to be the headline of the newspaper every day. I was ashamed that people were more interested in reading about him than about real news.

Following are examples of shameful events recalled by the Chinese participants:

Korean people protested against Japan for changing the textbook contents of World War II. However, Chinese people were unable to form any demonstration.

Some Chinese people spit and use vulgar language and gestures in public. When foreigners see this, they will feel that although China has a long civilization, her people's behaviors are uncivilized. They may think that all Chinese are like that. This makes me feel embarrassed. The behaviors of those Chinese make me feel ashamed.

Most Chinese students who study overseas do not return to China. The return rate is much lower than that of Indian students.

Zhao Wei [a famous young actress] wore an outfit with a design of the Japanese national flag.

One apparent difference in the types of incidents recalled by Chinese and American participants is that Chinese participants recalled more incidents in which Chinese were invaded and humiliated by other nations (e.g., the Opium War, the Sino-Japanese war) while the Chinese government failed to adequately defend against these attacks. By contrast, American participants recalled more incidents in which Americans invaded other countries or mistreated minority groups within America (e.g., slavery, massacre of Native Americans). To understand how these differences may affect participants' responses across the two national groups, we instructed a group of college students at Peking University and a group at the University of Illinois to recall two incidents in which they felt ashamed of being a Chinese (or an American) because of either (a) something their own country or fellow countrymen had done (*in-group* condition) or (b) something another country or foreigners had done to their country (*out-group* condition). Subsequently, we assessed participants' collective and individual self-esteem. Again we included a control condition in which participants were not asked to recall any shameful incidents.

A similar pattern of cross-national differences emerged regardless of condition. That is, American participants showed generally higher individual self-esteem, and generally lower collective self-esteem, than did Chinese participants. Also, American participants showed a higher level of individual self-esteem than collective self-esteem, whereas Chinese participants showed a higher level of collective self-esteem than individual self-esteem.

Comparisons between conditions within each national group also revealed a similar pattern of results. Chinese participants showed higher collective self-esteem in both the *in-group* and *out-group* conditions than in the control condition, while their individual self-esteem did not significantly differ between conditions. In contrast, American participants' collective self-esteem was not significantly affected by the shameful recall and was generally lower than their individual self-esteem across conditions.

In sum, these findings demonstrate the second step of the road map proposed above—the results show cross-national differences in the response patterns resulting from different shared beliefs. One interesting side note: The patterns found here may shed light on the psychology of terrorists. Specifically, members of cultural groups that emphasize obligations toward the group may *increase* their collective self-esteem when their group identity is shamed or humiliated (e.g., when the nation or organization is invaded and officials are defenseless). In this situation, individuals may be motivated to take action to protect the group, and thereby are vulnerable to the influences of radical ideologies that endorse terrorist activity. However, this process may not be apparent to North Americans who emphasize the individual self, and who are less likely to increase their collective self-esteem as a result of collective shame induction. In this way, North Americans may not be able to appreciate the power of shame and humiliation in rallying collective actions in other cultures.

STEP 3: EXAMINE THE CAUSAL EFFECTS OF LAY BELIEF ENDORSEMENT

Given that we found the proposed differences in response pattern between the two national groups in step 2, we proceeded in testing the causal role of the lay beliefs regarding group obligations and individual rights on the respective response patterns. To this end, we (Hong et al., 2006, Study 3)

experimentally manipulated participants' focus on the group versus the self and measured their collective and individual self-esteem after shame induction. It is important to note that this step only requires the participation of individuals from one national group because the focus is no longer on cross-national comparison. More importantly, we reasoned that the beliefs about both group obligations and individual rights are shared within Chinese and North American groups, but differ in their prevalence. Therefore, it is possible to increase the temporary accessibility of either belief within either one of the national groups. This point is, in general, consistent with the argument made by Oyserman and Sorensen (this volume) except that Oyserman and Sorensen focus on priming the individualist and collectivist *cultural syndromes* among any individual, whereas we focus on priming *domain specific beliefs* (cf. Kashima, this volume).

We recruited a sample of North American (Caucasian) undergraduate students at the University of Illinois at Urbana-Champaign (UIUC) and randomly assigned them to one of the two experimental conditions. Participants in the *group-focus* condition were asked to generate two ways in which they could improve the structure and environment at UIUC. Participants in the *self-focus* condition were asked to generate the main goal they wanted to achieve while a student at UIUC and two ways they could attain this goal. The group-focus and self-focus manipulations presumably activated concerns of obligations to the group and individual rights, respectively. Subsequently, half of the participants were asked to recall two incidents that made them feel ashamed of being a UIUC student, and then responded to the collective (UIUC) self-esteem (e.g., "I feel good being a UIUC student") and individual self-esteem measures. The remaining half of the participants (in the control condition) filled out the collective and individual self-esteem scales without recalling any shameful incidents.

We expected that participants in the group-focus condition would show a pattern of responses similar to those found among Chinese participants in step 2, whereas those in the self-focus condition would show a pattern of responses similar to those found among American participants. As predicted, participants in the group-focus condition reported a higher level of collective self-esteem than did those in the control condition, and a higher level of collective self-esteem than individual self-esteem. In contrast, participants in the self-focus condition reported a similar level of collective self-esteem as those in the control condition, and a lower level of collective self-esteem than individual self-esteem. As such, these results replicated those found between national groups, suggesting that the beliefs of obligations toward the group versus individual rights indeed caused the predicted patterns of responses under collective shame induction.

STEP 4: EXAMINE THE DYNAMIC SWITCHING OF THE TWO BELIEFS WITHIN THE MIND OF BICULTURAL INDIVIDUALS

To test the complete process of cultural influence, we need to activate the lay beliefs of the two cultural groups among bicultural individuals using cultural icons so as to show that cultural priming also gives rise to the corresponding beliefs and response patterns. To this end, we recruited a group of Chinese American students at UIUC who were born in a Chinese society but had lived in the United States for at least three years. The participants were randomly assigned one of three cultural priming conditions that were adopted from Hong et al. (2000). In the *Chinese priming* condition, participants were shown pictures of Chinese icons (e.g., the Great Wall, a Chinese opera performer) and were asked to write ten statements describing Chinese culture. In the *American priming* condition, participants were shown pictures of American icons (e.g., the Statue of Liberty, Marilyn Monroe) and were asked to write ten statements describing American culture. In the *neutral priming* condition, participants were shown pictures of clouds and were asked to write ten statements describing different meteorology. Presumably, the Chinese cultural prime would activate bicultural participants' beliefs in obligations toward the group, whereas the American cultural prime would activate bicultural participants' beliefs in individual rights.

Following the activation, participants were asked to recall two incidents that made them feel ashamed of being a UIUC student. Next, we assessed participants' level of collective (UIUC) self-esteem and individual self-esteem. The order of the collective self-esteem and individual self-esteem measures were counter-balanced across participants. In addition, we measured participants' beliefs in obligations toward the group and individual rights by asking for their degree of endorsement of statements such as, "Individuals have obligations to help their group out when the group is not doing well," and "Individuals have the right to leave a group when it is no longer good enough for them."

If the Chinese and American cultures are indeed associated with beliefs in obligations toward the group and individual rights, respectively, then the cultural icons should activate these beliefs in bicultural individuals. This logic was indeed the case. Participants in the Chinese priming condition showed a higher endorsement of beliefs in obligations toward the group, relative to their endorsement of individual rights, and their endorsement of obligations toward the group was higher than that of the participants in the American priming condition. Importantly, participants in the Chinese priming condition showed higher collective (UIUC) self-esteem than individual self-esteem after recalling shameful incidents. Also, their collective self-esteem was significantly higher than that of participants in the American priming condition. Participants in the American priming condition, in contrast, showed similar levels of endorsement of beliefs in obligations toward the group and individual rights, and a similar level of collective self-esteem and individual self-esteem after recalling shameful incidents. Participants in the neutral priming condition showed patterns of responses that were in between those of the participants in the two cultural priming conditions. These findings, as a whole, show that the Chinese and North American knowledge networks have different emphases concerning group obligations and individual rights. After experimentally activating the respective cultural knowledge using cultural icons, the bicultural participants showed the characterized patterns of responses in the face of collective shame. This last step completes the demonstration of my roadmap to studying cultural influences.

BOUNDARY CONDITIONS

FACTORS MODERATING RELIANCE ON THE SHARED LAY BELIEFS OF THE CULTURE

Although culturally shared lay beliefs are presumably used frequently within a cultural group and thus become chronically accessible to its members, it is not inevitable that members would use these lay beliefs in their judgments and behaviors. We contend that individuals will rely on their culture's chronic lay beliefs depending upon whether the beliefs can help them to fulfill their epistemic or existential needs. First, regarding the epistemic need, Kruglanski and colleagues (Kruglanski & Webster, 1996; Webster & Kruglanski, 1994) have shown that some people have higher needs (i.e., those with a higher *need for cognitive closure*) than others to attain an unambiguous, predictable world; thus, those with this higher need should seize and freeze on the information readily available to them. Given this conjecture, individuals who have a higher need for cognitive closure should also show a greater reliance on the chronically accessible shared beliefs of their culture, more so than would participants who have a lower need for cognitive closure. This prediction was confirmed by Chiu et al. (2000). Hong Kong Chinese and North American college students were asked to make attributions for an event that involved an individual or a group actor. As expected, participants with a higher need for cognitive closure showed the culturally typical pattern of attributions (i.e., Chinese participants made more external attributions about an individual actor, but made more internal attributions about a group actor than American participants did). However, there were no systematic differences between Chinese and American participants who had a lower need for cognitive closure. This suggests that those individuals with a lower need for cognitive closure rely less on culturally shared lay beliefs than do their counterparts with a higher need for cognitive closure. A similar pattern of results was obtained when cognitive closure was induced experimentally by putting participants under time pressure (Chiu et al., 2000).

Second, terror management theory (Greenberg et al., 1990) posits that when people's inevitable mortality is made salient, they become motivated to manage their terror by more highly endorsing their culture's worldview so that they can achieve somewhat of a symbolic existence beyond their individual physical life. Thus, mortality salience should increase both their reliance on their culture's shared lay beliefs and their display of culturally normative behaviors. Indeed, E. S. Kashima, Halloran, Yuki, and Y. Kashima (2004) found supportive evidence for this hypothesis, such that the mortality salience manipulation enhanced the endorsement of individualism among (low self-esteem) Australian participants, but reduced the endorsement of individualism among (low self-esteem) Japanese participants.

In sum, although culturally shared lay beliefs are arguably more chronically accessible to individuals, they may or may not be used, depending upon the needs of the individual at any given moment. Again, this finding shows that cultural influences are dynamic and not deterministic.

FACTORS THAT MODERATE THE EASE OF CULTURAL FRAME SWITCHING

As discussed previously, my research has shown that individuals who have been extensively exposed to multiple cultures (e.g., the American and Chinese cultures) are able to switch between cultural frames and respond according to the corresponding cultural cues (Hong et al., 2000). However, findings have demonstrated substantial individual differences in the flexibility of switching that were predicted by individuals' endorsement of *lay theories about race* (Chao, Chen, Roisman, & Hong, 2007; No et al., under review). Although the concept of race has been much discredited and abandoned by anthropologists and geneticists (e.g., Hirschfeld, 1996; Templeton, 1998), race continues to be a particularly salient factor in the organization of social worlds for lay people (Ossorio & Duster, 2005; Celious & Oyserman, 2001; Tate & Audette, 2001; Gossett, 1997). We have shown in our past research (Chao et al., 2007; Hong & No, 2005) that some people view race to be of a *natural kind*: that is, race has an *inherent biological basis*, is *indicative of one's abilities and traits*, and is *inalterable*. We coined this lay theory as *essentialist race theory* and have derived instruments to assess participants' endorsement of this theory and method to increase its accessibility (No et al., in press).

We argue that essentialist race theory reflects an *ontological commitment* to race as a cause of human differences. To the extent that different racial groups often show cultural differences, holding an essentialist race theory should orient individuals to attribute cultural differences to a deep underlying racial essence that is biologically determined and unalterable. That is, people who strongly hold an essentialist race theory, in comparison to those who believe in the theory less, should be more likely to perceive racial groups and their attendant cultures as discrete, non-overlapping entities and to have difficulty in switching flexibly between knowledge representations of the two groups. To test this idea, we used pictures of Chinese and American cultural icons (e.g., the Great Wall, the Statue of Liberty) to activate the cultural representations of Chinese American participants (Chao et al., 2007, Study 1). We then examined how these primes affected the participants' subsequent speed in recognizing Chinese and American cultural value words (e.g., obligation, freedom). Consistent with our predictions, the endorsement of essentialist beliefs was associated with longer reaction times on trials that required making a rapid switch between cultural frames (i.e., the Chinese-prime-American-value and American-prime-Chinese-value trials).

For racial minority members (e.g., Chinese Americans) who endorse essentialist race theory, discrete representations of cultures might signify the impermeability of cultural boundaries. Thus, discussing personal experiences within the two cultures may be highly stressful and threatening for these individuals because such recollection requires them to integrate the two apparently discrete cultures and to reconcile some seemingly conflicting cultural attributes (e.g., cultural values). As a result, racial minority participants who hold an essentialist race theory were expected to show threat-related physiological responses (heightened skin conductance) when discussing their bicultural experiences. To test this hypothesis, Chao et al. (2007, Study 2) asked a sample of Chinese

Americans to discuss their personal experiences with both the Chinese and American cultures (e.g., “Please generate five words to characterize your experiences with Chinese culture, and substantiate each word with your personal stories”; “Please generate five words to characterize your experiences with American culture, and substantiate each word with your personal stories”). The prompts created a context within which the participants were guided to explore their personal experiences with the two cultures in some detail, thereby allowing us to obtain a reliable skin conductance measure. As predicted, endorsement of essentialist race theory predicted a significant increase in skin conductance level when the participants talked about their bicultural experiences. Moreover, the change in skin conductance level was not correlated with the participants’ English proficiency, ruling out the possibility that the participants’ ability to understand and speak English confounded the results. As such, these findings suggest that having a stronger essentialist belief is linked to greater emotional reactivity when discussing matters that remind ethnic minority participants of their bicultural identity.

Asian Americans who hold a strong essentialist race theory not only have difficulty in switching between culture frames, but in other studies we also found that they respond to reminders of (White) American culture (i.e., encounters, primes) by contrasting themselves from this culture (No et al., *in press*). Other researchers (Cheng, Lee, & Benet-Martínez, 2006; Benet-Martínez, Leu, Lee, & Morris, 2002) have also found contrastive responses in cultural frame switching for Asian Americans who view their Asian and American identities as incompatible and conflicting.

In sum, although bicultural individuals presumably have acquired cultural knowledge of two cultures, their application of cultural knowledge in different contexts depends not only on the relative accessibility of the cultural knowledge, but also on their lay beliefs about the underlying nature of the cultural groups and their conceptions of their bicultural identities. Essentialist race theory seems to provide a framework within which racial groups and their attendant cultures are seen as fundamentally different and discrete. As a result, it is both cognitively and emotionally taxing for bicultural beholders of essentialist race theory to switch between the cultural frames. These effects also indicate that cultural processes are integrally tied to social identity processes, and the study of the two should inform each other. A detailed discussion of this issue can be found in Hong, Wan, No, and Chiu (2007).

OUR FOCUS

To reiterate, the dynamic constructivist approach contends that the activation of cultural frames using cultural icons or symbols among bicultural individuals (step 4) is crucial to studying cultural influences. This particular contention differentiates the dynamic constructivist approach from the situated cognition model, a newly developed perspective proposed by Oyserman and colleagues. To begin, Oyserman and Sorensen (this volume) propose that “societies differ, not in whether a syndrome (e.g., collectivism) exists, but rather in how likely such a syndrome is to be cued.” Indeed, as noted, research has shown that priming an independent versus interdependent orientation (by asking participants to circle “I” versus “we” in an essay, or to read a story of a warrior that focuses on family honor versus individual achievement) resulted in responses corresponding to the individualistic and collectivistic syndromes, respectively (Gardner et al., 1999; see review by Oyserman & Lee, 2008). The dynamic constructivist approach also proposes a similar strategy, as discussed in step 3 previously, in studying the causal effects of specific shared cultural knowledge on judgment and behavior. However, unlike the situated cognition model, the dynamic constructivist approach emphasizes the importance of studying the effects of cultural icons or symbols (e.g., the Great Wall for the Chinese culture, the Statue of Liberty for the American culture) on bicultural individuals. The situated cognition model, however, argues against using selected groups, such as bicultural participants. By assuming that both individualistic and collectivistic cultural syndromes exist to some extent in most societies, the situated cognition model focuses on priming these syndromes among any individual (usually monocultural individuals).

What do these differences imply? According to the dynamic constructivist approach, culture is a knowledge cluster consisting of a unique configuration of concepts and procedures that are stored in memory as a unit. Further, priming culture, via cultural icons or symbols, will activate the entire configuration. Priming specific cultural concepts (e.g., “I” versus “we”) may not be able to fully capture the entire configuration, as the configuration is likely to be more than the sum of its component cultural constructs. That is, different configurations of concepts have unique effects on behavior and judgment, and these configurations exist in some cultures but not in others. Therefore, the configuration will provide understanding that cannot be acquired by looking at the individual cultural concepts and processes. For example, Brewer and Chen (2007) have argued that the collectivism previously found among East Asians is mostly related to the “relational self” rather than the “collective self.” Yuki, Maddux, and Brewer (2005) found that while both North Americans and Japanese trust an unknown in-group member more than a total stranger, Japanese trust an in-group member who has a potential relational link more than an in-group member who simply shares the same categorical membership (from the same university). North American participants show the reverse pattern. Therefore, it is likely that priming interdependence among North American and Japanese would give rise to different manifestations at the relational self and collective self level.

More importantly, the configuration that is primed by the cultural icons reflects individuals’ representation of the culture, which is affected by the experience of the individuals with the culture. Individuals need to have a fair amount of direct or indirect experiences with a culture in order to form a representation of the culture and react to iconic cultural primes (Fu et al., 2007). For example, cultural icons (the American eagle, Statue of Liberty) activate the perceived dominant political ideology in the culture (freedom and liberty), particularly those ideologies that are widely publicized in the media (Hassin, Ferguson, Shidlovski, & Gross, 2007; Hong et al., 1997), even though individuals may not necessarily endorse these values personally. Furthermore, under certain circumstances (e.g., mortality threat), people may react emotionally toward the inappropriate use of cultural icons (e.g., using the crucifix as a hammer, Greenberg, Porteus, Simon, & Pyszczynski, 1995). It is unlikely that a similar reaction would occur toward the inappropriate use of “I” versus “we” in an essay. Furthermore, cultural icons could activate identity concerns (e.g., seeing American icons could make an Asian American aware that he or she is not a full-fledged American), and as a result, individuals may display contrastive (versus assimilative) responses. In contrast, thus far, only assimilative responses to cultural construct primes (“I” versus “we”) have been reported. As such, although the situated cognitive model may explain cultural processes in the abstract, it does not fully account for processes involved in cultural experiences.

In sum, there is no dispute between the dynamic constructivist approach and the situated cognition model with regard to the twin opinions that finding out the “active ingredients” of cultural influences is important and priming directly the “active ingredients” can help to establish the causal links of culture. However, going beyond the situated cognition model, the dynamic constructivist approach seeks to address the issues of how individuals actively construct their cultural representations and how they acquire more than one set of cultural representations in this globalizing world.

CONCLUSION

I started this chapter by alluding to Bickhard’s (2004) insight that every science moves from describing the substances to explaining the processes. To fulfill this vision, I have in this chapter proposed a dynamic constructivist approach to conceptualize the underlying processes of cultural influences and a methodological road map to studying cultural processes. Several themes emerged in the discussion. For one, culture does not reside in groups and thus should not be treated as the essence of groups. Rather, culture resides in the networks of knowledge shared by a collection of people. Importantly, the distribution of the knowledge is probabilistic and uneven within a group, and not discrete between groups. Although activation of the shared knowledge can bring about (cause) certain response outcomes, it is not deterministic. Whether individuals enact the accessible shared

knowledge depends also on specific beliefs (e.g., essentialist race theory) and needs (epistemic and existential needs) in specific contexts (e.g., intergroup contexts).

In sum, the dynamic constructivist approach moves beyond describing cultural differences or similarities such that it explains the processes of cultural influences. It opens up possibilities for investigating the influences of social change and globalization on individuals' psychology; for example, will globalization result in a unified, homogeneous culture and thus melt away previously found cross-cultural differences? Alternatively, will globalization bring about an unexpected form of reactance: the trend toward differentiation and exaggeration of intergroup differences in the form of ethnic revival and pride in being unique? The beliefs and motivations that are revealed using the dynamic constructivist approach may shed light on these questions.

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REFERENCES

- Barth, F. (2002). An anthropology of knowledge. *Current Anthropology*, 43, 1–18.
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M.W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology*, 33, 492–516.
- Bickhard, M. H. (2004). Part II: Applications of process-based theories: Process and emergence: Normative function and representation. *Axiomathes*, 14, 121–155.
- Brewer, M. B., & Chen, Y-R (2007). Where (Who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Review*, 114, 133–151.
- Celius, A., & Oyserman, D. (2001). Race from the inside: An emerging heterogeneous race model. *Journal of Social Issues*, 57, 149–165.
- Chao, M., Chen, J., Roisman, G., & Hong, Y. (2007). Essentializing race: Implications for bicultural individuals' cognition and physiological reactivity. *Psychological Science*, 18, 341–348.
- Chen, X., Cen, G., Li, D., & He, Y. (2005). Social functioning and adjustment in Chinese children: The imprint of historical time. *Child Development*, 76, 192–195.
- Cheng, C., Lee, F., & Benet-Martínez, V. (2006). Assimilation and contrast effects in cultural frame switching (CFS): Bicultural identity integration (BII) and valence of cultural cues. *Journal of Cross-Cultural Psychology*, 37(6), 742–760.
- Chiu, C., & Hong, Y. (2007). Cultural processes: Basic principles. In E. T. Higgins, & A.E. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 785–809). New York: Guilford.
- Chiu, C., Hong, Y., Lam, I. C. M., Fu, H. Y., Tong, Y. Y., & Lee, S. L. (1998). Gender stereotyping and self-presentation: Effects of gender stereotype activation. *Group Processes and Intergroup Relations*, 1, 25–40.
- Chiu, C., Morris, M. W., Hong, Y., & Menon, T. (2000). Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need for closure. *Journal of Personality and Social Psychology*, 78, 247–259.
- Cousins, S. D. (1989). Culture and self-perception in Japan and the United States. *Journal of Personality and Social Psychology*, 56, 124–131.
- Diamond, J. M. (1999). *Guns, germs, and steel: The fates of human societies*. New York: Norton.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, 6, 267–285.
- Fu, H-y., Morris, M. W., Lee, S-I. Chao, M-c., Chiu, C., & Hong, Y. (2007). Epistemic motives and cultural conformity: Need for closure, culture, and context as determinants of conflict judgments. *Journal of Personality and Social Psychology*, 92, 191–207.
- Gaertner, L., Sedikides, C., & Graetz, K. (1999). In search of self-definition: Motivational primacy of the individual self, motivational primacy of the collective self, or contextual primacy? *Journal of Personality and Social Psychology*, 76, 5–18.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). "I" value freedom, but "we" value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321–326.

- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, 91, 1225–1244.
- Gossett, T. F. (1997). *Race: The history of an idea in America*. (New ed.). New York: Oxford.
- Greenberg, J., Porteus, J., Simon, L., & Pyszczynski, T. (1995). Evidence of a terror management function of cultural icons: The effects of mortality salience on the inappropriate use of cherished cultural symbols. *Personality and Social Psychology Bulletin*, 21, 1221–1228.
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., et al. (1990). Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural world view. *Journal of Personality and Social Psychology*, 58(2), 308–318.
- Hassin, R. R., Ferguson, M. J., Shidlovski, D., & Gross, T. (2007). Subliminal exposure to national flags affects political thought and behavior. *Proceedings of the National Academy of Sciences*, 104, 19757–19761.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: The Guilford Press.
- Hirschfeld, L. A. (1996). *Race in the making: Cognition, culture, and the child's construction of human kinds*. Cambridge: MIT Press.
- Hong, Y., Benet-Martínez, V., Chiu, C., & Morris, M. W., (2003). Boundaries of cultural influence: Construct activation as a mechanism for cultural differences in social perception. *Journal of Cross-Cultural Psychology*, 34, 453–464.
- Hong, Y., & Chiu, C. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, 19, 181–196.
- Hong, Y., Chiu, C., & Kung, M. (1997). Bringing culture out in front: Effects of cultural meaning system activation on social cognition. In K. Leung, U. Kim, S. Yamaguchi, & Y. Kashima (Eds.), *Progress in Asian social psychology*, Vol.1. (pp. 139–150). Singapore: Wiley.
- Hong, Y., Ip, G., Chiu, C., Morris, M. W., & Menon, T. (2001). Cultural identity and dynamic construction of the self: Collective duties and individual rights in Chinese and American cultures. *Social Cognition*, 19, 251–268.
- Hong, Y., Lee, K., & Zhang, Z. (2006). *Cultural influences on the link between individual and collective self*. University of Illinois at Urbana-Champaign: Unpublished data.
- Hong, Y., Levy, S. R., & Chiu, C. (2001). The contribution of the lay theories approach to the study of groups. *Personality and Social Psychology Review*, 5, 97–105.
- Hong, Y., Morris, M., Chiu, C., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Hong, Y., & No, S. (2005). Bicultural individuals' representation of cultures and the self: Comparing first and later generation Asian Americans. In P. K. Oles & H. J. M. Hermans (Eds.), *The dialogical self: Theory and research*. (pp. 61–70). Lublin: Wydawnictwo KUL.
- Hong, Y., Wan, C., No, S., & Chiu, C. (2007). Multicultural identities. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 323–345). New York: Guilford.
- Huang, R. (1997). *China: A macro history*. Armonk, New York: M. E. Sharpe, Inc.
- Jetten, J., Postmes, T., & McAuliffe, B. (2002). "We're all individuals": Group norms of individualism and collectivism, levels of identification and identity threat. *European Journal of Social Psychology*, 32, 189–207.
- Ji, L., Zhang, Z., & Nisbett, R. E. (2004). Is it culture or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of Personality and Social Psychology*, 87, 57–65.
- Kashima, E. S., Halloran, M., Yuki, M., & Kashima, Y. (2004). The effects of personal and collective mortality salience on individualism: Comparing Australians and Japanese with higher and lower self-esteem. *Journal of Experimental Social Psychology*, 40, 384–392.
- Kim, K., & Markman, A. B. (2006). Differences in fear of isolation as an explanation of cultural differences: Evidence from memory and reasoning. *Journal of Experimental Social Psychology*, 42, 350–364.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: "Seizing" and "freezing." *Psychological Review*, 103, 263–283.
- Kuhn, M. H., & McPartland, T. (1954). An empirical investigation of self-attitudes. *American Sociological Review*, 19, 224–253.
- Kuhnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.
- Latané, B. (1996). Dynamic social impact: The creation of culture by communication. *Journal of Communication*, 46, 13–25.

- Latané, B., & L'Herrou, T. (1996). Spatial clustering in the conformity game: Dynamic social impact in electronic groups. *Journal of Personality and Social Psychology, 70*, 1218–1230.
- Lee, A. Y., Aaker, J. L., & Gardner, W. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*(6), 1122–1134.
- Leung, K., & Bond, M. H. (1984). The impact of cultural collectivism on reward allocation. *Journal of Personality and Social Psychology, 47*, 793–804.
- LeVine, R. A. (2001). Culture and personality studies, 1918–1960: Myth and history. *Journal of Personality, 69*, 803–818.
- Liu, J. H., Goldstein-Hawes, R., Hilton, D., Huang, L., Gastardo-Conaco, C., Dresler-Hawke, E., et al. (2005). Social representations of events and people in world history across twelve cultures. *Journal of Cross-Cultural Psychology, 36*, 171–191.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18*, 302–318.
- Lyons, A., Kashima, Y. (2001). The reproduction of culture: Communication processes tend to maintain cultural stereotypes. *Social Cognition, 19*, 372–394.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.
- Markus, H. R., Uchida, Y., Omorogie, H., Townsend, S. S. M., & Kitayama, S. (2006). Going for the gold: Models of agency in Japanese and American contexts. *Psychological Science, 17*, 103–112.
- Masuda, T., & Nisbett, R. E. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology, 81*, 922–934.
- Menon, T., Morris, M. W., Chiu, C., & Hong, Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology, 76*, 701–717.
- Nisbett, R. D. (2003). *The geography of thought: How Asians and Westerners think differently and why*. New York: The Free Press.
- No, S., Hong, Y., Liao, H., Lee, K., Wood, D., & Chao, M. (in press). Lay theory of race affects and moderates Asian Americans' responses toward American culture. *Journal of Personality and Social Psychology*.
- Ossorio, P., & Duster, T. (2005). Race and genetics: Controversies in biomedical, behavioral, and forensic sciences. *American Psychologist, 60*, 115–128.
- Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin, 134*, 311–332.
- Pouliasi, K., & Verkuyten, M. (2007). Networks of meaning and the bicultural mind: A structural equation modeling approach. *Journal of Experimental Social Psychology, 43*, 955–963.
- Rhee, E., Uleman, J. S., & Lee, H. K. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analyses. *Journal of Personality and Social Psychology, 71*, 1037–1054.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Ross, M., Xun, W. Q. E., & Wilson, A. E. (2002). Language and the bicultural self. *Personality and Social Psychology Bulletin, 28*, 1040–1050.
- Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg self-esteem scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology, 89*, 623–642.
- Siy, J. O. (2008). *Priming luck among Chinese-American bicultural individuals*. Unpublished undergraduate thesis, University of Illinois at Urbana-Champaign.
- Sperber, D. (1996). *Explaining culture: A naturalistic approach*. Oxford, UK: Blackwell.
- Su, S. K., Chiu, C., Hong, Y., Leung, K., Peng, K., & Morris, M. W. (1999). Self organization and social organization: American and Chinese constructions. (pp. 193–222). In T. R. Tyler, R. Kramer, & O. P. John (Eds.), *The psychology of the social self*. Mahwah, NJ: Lawrence Erlbaum.
- Tate, C., & Audette, D. (2001). Theory and research on “race” as a natural kind variable in psychology. *Theory and Psychology, 11*, 495–520.
- Templeton, A. R. (1998). Human races: A genetic and evolutionary perspective. *American Anthropologist, 100*, 632–650.
- Trafimow, D., Triandis, H., & Goto, S. (1991). Some tests of the distinction between the private and collective self. *Journal of Personality and Social Psychology, 60*, 649–655.
- Verkuyten, M., & Pouliasi, K. (2002). Biculturalism among older children: Cultural frame switching, attributions, self-identification, and attitudes. *Journal of Cross-Cultural Psychology, 33*, 596–609.

- Wan, C., Chiu, C., Tam, K., Lee, S., Lau, I. Y., & Peng, S. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology*, 92, 337–354.
- Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock*. (2nd edition). Philadelphia: Routledge.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67, 1049–1062.
- Wong, R. Y-M., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, 16, 429–434.
- Wyer, R. S., & Srull, T. K. (1986) Human cognition in its social context. *Psychological Review*, 93, 322–359.
- Yuki, M., Maddux, W. W., Brewer, M. B. (2005). Cross-cultural differences in relationship- and group-based trust. *Personality and Social Psychology Bulletin*, 31, 48–62.

2 Understanding Cultural Syndrome Effects on What and How We Think

A Situated Cognition Model

Daphna Oyserman and Nicholas Sorensen

What is meant by *culture* and how does it matter? In this chapter, we argue that culture is best understood as a multidimensional rather than a unitary construct. Specifically, we propose that societies socialize for and individuals have access to a diverse set of overlapping and contradictory processes and procedures for making sense of the world and that the processes and procedures that are cued in the moment influence the values, relationality, self-concept, well-being, and cognition that are salient in the moment. This interpretation contrasts with the more common discourse on culture as a single, unified, chronically accessible whole that is isomorphic with one's country of origin. In the following sections, we outline our perspective and supporting evidence from recent meta-analytic summaries and follow-up studies that, taken together, suggest that such a situated syndrome perspective offers the potential to unpack more of what is meant by "culture's consequences"—to borrow the title of Geert Hofstede's (1980) seminal book.

In making our case we also borrow from Triandis (1996) the term *syndrome* to describe culture. Cultural syndromes are networks of associated features, such that cuing one feature is likely, through spreading activation, to make other features salient in working memory as well. We assume that societies do not have a unitary culture or even a single cultural syndrome, but rather have access to a multiplicity of overlapping and potentially conflicting cultural syndromes that are differentially salient, depending on where one is in a society's structure and what is relevant at the moment. This notion of multiplicity can be contrasted with the notion of culture as a single entity (e.g., individualism *or* collectivism), something one has (e.g., a "cultured" person), or a general style of living (e.g., a "culture" of honor or of filial piety) that is fixed (e.g., Chinese "culture" is over five thousand years old). Culture, from our perspective, involves mindsets, practices, and styles of engaging; it is these implicit and nonconscious as well as more explicit and conscious mental representations that are the focus of our attention and the propensity for one or another to be cued differs across societies.

CULTURE: UNITARY OR MULTI-FACETED?

ADVANCES MADE WITH THE UNITARY MODEL

The culture as single entity framework has illuminated some aspects of culture's mutability (e.g., describing change to another country or modernization in terms of "culture shock" and learning to live in more than one society in terms of becoming "bicultural" and "multicultural"; Holt, 1940; Hong, Morris, Chiu, & Benet-Martínez, 2000; LaFromboise, Coleman, & Gerton, 1993; Ward, Bochner, & Furnham, 2001). For example, in her chapter, Hong describes biculturals as those

incorporating culture A and culture B. By assuming that each society or group has a single culture, these formulations facilitate using between-group or between-nation differences as stand-ins for effects of “culture.” Indeed, researchers commonly substitute nation-state (e.g., China, Japan, the U.S.; Anderson, 1999; Bond & Cheung, 1983; Chang, Arkin, Leong, Chan, & Leung, 2004; Chang, Asakawa, & Sanna, 2001; Chen, Brockner, & Katz, 1998; Church et al., 2006; Jackson, Chen, Guo, & Gao, 2006; Kitayama, Mesquita, & Karasawa, 2006; Krull et al., 1999; Ma & Cheung, 1996; Maddux & Yuki, 2006; Matsumoto, 1992; Peng & Nisbett, 1999) or people from differing heritage (e.g., Asian Americans/Canadians and European Americans/Canadians; Abramson & Imai-Marquez, 1982; Aune & Aune, 1996; Heine & Lehman, 1997; Kim & Sherman, 2007; Scollon, Diener, Oishi, & Biswas-Diener, 2004; Singelis & Sharkey, 1995; Spencer-Rodgers, Peng, Wang, & Hou, 2004; Tsai & Levenson, 1997) for “culture” in their analyses.

In these analyses, cross-national comparison has been assumed to mark contrast between cultures, for example, between cultures that emphasize “individualism” and “collectivism” (e.g., Hofstede, 1980), “tightness” and “looseness” (Triandis, 1995), “horizontality” and “verticality” (Triandis & Gelfand, 1998), “survival values” and “self-expression values” (Inglehart 1997), and “honor-modesty” and “shame” (e.g., Cohen, 2001; Gregg, 2005; Nisbett & Cohen, 1996). Triandis (1995) provides useful descriptions for many of these contrasts. Individualistic societies are said to emphasize individuals and centralize personal choice. In contrast, collectivistic societies are said to emphasize social groups and centralize group membership. Loose societies are said to accept a broad range of behavior without sanction in most situations. In contrast, tight societies are said to provide clear scripts for proper behavior in most situations and to sanction deviation from these scripts. Similarly, hierarchical societies are said to emphasize status differences in making sense of the social world; different behavior is expected, depending on one’s station in life. In contrast, vertical societies are said to emphasize equality in making sense of the social world; differences in power, status, or position are not assumed relevant. Lastly, honor-based societies are said to emphasize proving and defending one’s honor and the honor of close others, whereas societies that do not recognize honor as a basis for meaning making are said to use alternative meaning and morality systems.

Clearly, comparing societies provides some useful information about where to look for cultural differences. However, this conceptualization focuses on each society as having a single culture (e.g., “America is individualistic”). This formulation is at odds with the experience of living in a society as well as with a number of formulations. For example, Waterman (1981) argued that the individualistic socialization in America not only coexists with but actually facilitates valuing relationships, helping and cooperating with others. Similarly, in his examination of socialization of children, Turiel (1983) argued that across societies, both independence and interdependence are valued, but when they are cued is situation-specific and the propensity for one another to be cued differs across societies.

GAPS IN UNITARY MODELS: MOVING TOWARD MULTI-SYNDROME MODELS

Thus, while yielding interesting and seemingly ecologically valid data, the equation of nation-state (or society) with culture masks the fact that between-group differences are at best an indirect indicator that “culture” is at work. Research based in this approach cannot clarify which of many possible “active ingredients” may underlie any detected between-sample differences or, for that matter, whether differences are due to “cultural” factors at all. Moreover, operationalizing culture as a particular society or national origin group creates an artificial sense that culture is stable and is an entity. We disagree with both of these assumptions. Although people from China will always be from China (a stable social fact, even if they later move) and Chinese people will always be Chinese (another stable social fact, even if they also become other things), these social facts are simply markers or placeholders. As such, they do not allow for the inference about likely content of identity or

style of engaging with the world. In our work, we assume that there is not a single “Chinese” way of being and that Chinese society does not necessarily socialize members for only one way of being or style of thinking. Thus “Chineseness” is not an essence.

We argue that conflation of country or national origin with a single “culture” is confusing on two grounds. First, it artificially creates a sense that societies do not socialize for multiple, potentially contradictory cultural component sets or syndromes that may be cued by differing situations. Second, it reduces likelihood of seeing parallels between syndromes in one society or set of societies and other seemingly dissimilar societies. Using the example of collective and individualistic cultural syndromes (which we will define below), we argue that societies socialize members for both individualism and collectivism. Differences between societies do not occur because one society is “collectivistic” and the other is not. Rather, societies differ in how likely collectivism is to be cued and therefore in the chronic salience of this syndrome as a way of making sense of situations. To begin to address limitations of national-origin and single “culture” based approaches, in this chapter we first define cultural syndromes as a way to examine what cultures’ active ingredients may look like. Then, we examine whether priming or making salient these active ingredients produces the effects that are posited to be “cultural” in cross-cultural studies.

CULTURAL SYNDROMES

By cultural syndrome, we refer to simplifying models that bring certain active ingredients of what is popularly described as “culture” to sharp relief. These models are not meant to provide detailed descriptions of any particular society’s culture, but rather to highlight systematic patterns that characterize clusters of societies. Building on Triandis’s (1993, 1996; Triandis & Trafimow, 2001) formulation of cultural syndromes, we operationalize cultural syndromes as patterned beliefs, attitudes, and mindsets that go together in a loosely defined network: when one aspect of a syndrome is primed, other aspects of the syndrome are also likely to be active and available in working memory. Although cultural attitudes, beliefs, and mindsets are likely to have emerged from distal social and geographic contexts, they have continued influence on societies and individuals within them. This is true even if the initial distal factors associated with these social contexts have changed.

We conceptualize societies as containing multiple cultural syndromes and propose that one important feature of cultural syndromes is that they create meanings and make certain ways of being and thinking accessible when they are triggered or cued. These meanings have variously been called mindsets and mental or social representations (Oyserman & Markus, 1998; Schweder, 1995). Triandis and Trafimow (2001) have identified a number of situational factors that are likely to cue collectivism as a cultural syndrome within a society. These factors include whether one is with in-group or out-group members, the size of the in-group one is with, and whether in-group norms have been cued. Indeed, any situation can cue a cultural syndrome if the content or processes related to the syndrome are brought to mind by the situation. Situations that cue a cultural syndrome should activate both relevant content (mental and social representations) and relevant mindsets. When collectivism is cued, for example, aspects of one’s self-concept that are related to one’s public image may also become salient; whereas when individualism is cued, aspects that are related to one’s private self-evaluation are more likely to come to mind.

Because cultural syndromes link mindsets and mental and social representations, cuing one part of the network should cue others. The model therefore predicts both that cuing collectivism should make salient public or collective aspects of self-concept and also that cuing public self-concept should make salient other aspects of collectivism. Societies may on average have a higher prevalence of one or another cultural syndrome, but that is not to say that less common syndromes are completely absent from the society. Rather, various syndromes may be rarely or more commonly cued.

CULTURAL SYNDROMES AS A MID-LEVEL CONSTRUCT LINKING DISTAL PAST AND CURRENT CONSEQUENCES

Rather than thinking of a society as individualistic *or* collectivistic, we view these society labels as useful shorthand images, but no more than shorthand images. That is, societies differ, not in whether a syndrome (e.g., collectivism) exists, but rather in how likely such a syndrome is to be cued. While we assume that our model is relevant across various syndromes, we concentrate on individualism and collectivism for two reasons. First, these dimensions have received most research attention (e.g., Hofstede, 1980, 2001; Kağıtçıbaşı, 1997; Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 1995, 2007). Second, other identified cultural syndromes are linked to these syndromes (for a review, see Blondel & Inoguchi, 2006).

CULTURAL SYNDROMES ARE NESTED WITHIN SOCIETIES

As represented by the gray middle panel in Figure 2.1, we conceptualize cultural syndromes as the proximal link between the distal factors (e.g., geography, religion) assumed to create these syndromes and cultures' current consequences. As conceptualized, cultural syndromes influence both social institutions and everyday social situations and, importantly, the likely sense made of these situations, what individuals consciously or nonconsciously perceive the situation to be "about" (see Higgins, 1998). Thinking in terms of cultural syndromes rather than a particular philosophic tradition (e.g., Protestantism or Confucianism) is useful because differing distal features may result in similar syndromes.

For example, Confucianism in China and tribalism and harsh ecology in Africa and the Middle East may each foster a collective cultural syndrome. In the case of Confucianism, a meaning-making system focused attention on fitting into context, being obedient, and multicausal networks. In the case of harsh ecology, the need to depend on others to survive is salient.

Although psychologists have characteristically not taken social organization and social structure into account in their theorizing, this larger context and the pattern of behaviors that his larger context implies determine to a large extent the behavior of individuals within a society. Within our model, what is meant by society is not an anthropological description of the unique patterns

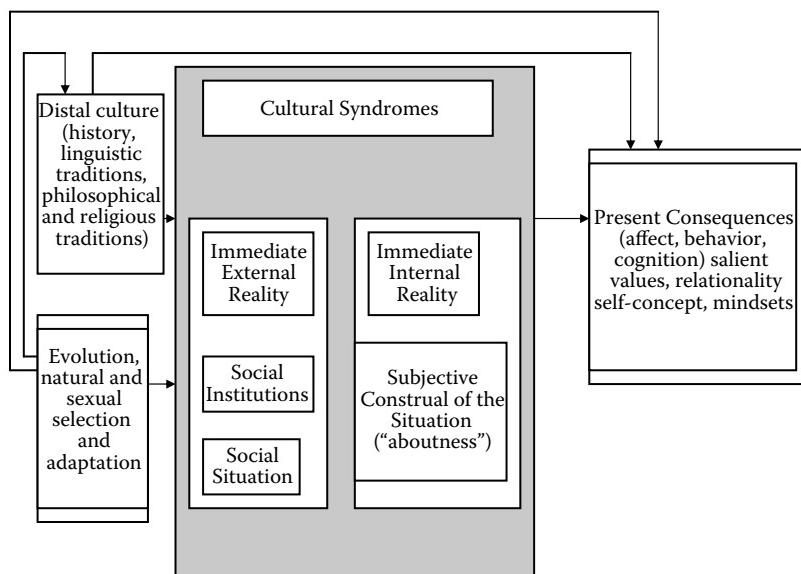


FIGURE 2.1 A process model of culture's impact

and history of a society, but rather a more general pattern or process. In this sense, while societies are not the same, their cultural syndromes may have similarities. Such equifinality, or equivalent outcomes from a variety of precipitating factors, is likely because getting along, fitting, in and cooperating has many benefits to societies and is likely to be triggered by multiple sources, while doing one's own thing, being unique, and standing out can have many orthogonal benefits to individuals and so can also be multiply triggered (see Katz & Kahn, 1966). Anything so important is likely to have multiple causes.

CULTURAL SYNDROMES: IMMEDIATE EXTERNAL AND INTERNAL REALITIES

Situations: Immediate external realities. As presented in the middle panel of Figure 2.1, we assume that individuals experience "culture" by encountering syndrome-relevant situations (e.g., being reprimanded for not following a social norm, or being asked for one's personal preferences) and making sense of these situations in syndrome-relevant terms. The meaning made of these situations is what influences on-line responses. Following the principles of equifinality, situations that differ in their specifics may nonetheless all cue the same underlying processes. For example, collective focus can be turned on whether the situation involves deferring to one's elders, defending the honor of one's group, or cooperating to insure water reaches crops.

Thus, rather than conceptualizing syndromes as polar opposites, we propose that societies may not differ in terms of *whether* a cultural syndrome exists, but rather differ in the *number* of institutions and situations within the society that cue each of a variety of cultural syndromes. When a cultural syndrome is institutionally accessible and situationally cued, its impact is felt in the moment. Following this conceptualization, differences between societies reflect the relative likelihood that the syndrome is cued.

Subjective construals: Immediate internal realities. There are two ways to understand this situated process. One is that situations themselves have meaning and carry with them cultural syndrome cues. Countries would then differ in the kinds of situations their inhabitants usually experience; when the situation is the same, the response would be the same. This logic would suggest, for example, that wartime situations cue relevant cultural syndromes (e.g., collectivism, honor) universally across societies. Another way to understand situated process is that effects are not due to situations but to the meaning drawn from them. Rather than assume that *situations* themselves cue cultural syndromes, the assumption is that what differs is not so much the situations inhabitants encounter as the meaning given to these situations—how they are *subjectively construed*. For example, failure may cue honor in one society but not in another. However, whenever honor is cued, the response will be the same. Subjective construals, not situations, produce isomorphic responses. Thus, for example, collectivism can be cued in family situations if they are understood in terms of filial piety, but not necessarily otherwise.

A cultural syndrome model therefore implies three things. First, everyday situations can carry different meanings. Second, culture provides these meanings; and third, different cultural syndromes can be cued, producing sharply different "situated" or momentary realities. We argue for this latter "situated" perspective, focusing on active ingredients of individualistic and collectivistic cultural syndromes and their consequences for what and how we think, and ask what the meta-analytic evidence for this model is. A situated model holds great promise of providing tools to begin to open the "black box" of culture as a stable yet dynamic influence, not only providing further evidence that culture matters but also showing how and when it matters.

AN INTEGRATION

Of course, our approach assumes that all societies socialize for both individual and collective cultural syndromes to some degree. Indeed, the evidence would support this theoretical argument that societies can be high or low in individualism, collectivism, or both (see Oyserman, Coon, &

Kemmelmeier, 2002). In order for the situated model to be defensible, however, it is necessary to document more than just that cultural constructs such as individualism and collectivism are orthogonal. It is also necessary to show that when cultural syndromes are brought to mind, they have the same effects in different societies and that these effects are congruent with those predicted or documented in a cross-national framework. Following a social cognition framework, a culture-as-situated-cognition model assumes that ambiguous situations are likely to be interpreted in terms of chronically accessible cultural syndromes. Once a syndrome is cued, whether it is chronically accessible or chronically inaccessible should not matter. Even chronically inaccessible syndromes should become temporarily dominant when cued in context.

In the following section we provide a brief summary of the individualism and collectivism framework, including assumptions and evidence to date. We then explain more thoroughly the hypothesized consequences of priming individual versus collective cultural syndromes and present the results of a recent meta-analytic review of the cultural-syndrome priming literature and critical examination of extant support for a situated perspective. To foreshadow our conclusions, we find that both individualistic and collectivistic cultural syndromes can be primed in the East and the West, producing significant and moderate-sized effects across dependent variables, country samples, and specific priming tasks.

INDIVIDUALISM AND COLLECTIVISM

ASSUMPTIONS

A main contention of cultural and cross-cultural psychology is that societies differ in individualism and collectivism and that these differences have consequences for what has meaning and value, what is worthy of persistent effort, and how we make sense of ourselves and others (e.g., Inglehart & Oyserman, 2004; Schwartz, 1994). Individualism as a cultural syndrome focuses on the individual as the basic unit of analysis; collectivism as a cultural syndrome focuses on the group as the basic unit of analysis. This initial operationalization carries with it the assumption of distinctive values and content of self-concept, differing conceptualizations of human relationships, and signature cognitive styles. Some of these differences are outlined below.

COLLECTIVISM

Within a collective cultural frame, essential values are assumed to be group solidarity, social obligation, connection, and integration; important group memberships are ascribed and fixed “facts of life” to which people must accommodate; both in-groups and boundaries between in- and out-groups are experienced as stable, impermeable, and important. A basic self-goal is to attain and maintain group membership, so that the self is defined both in terms of one’s social roles (e.g., middle daughter) and group memberships (e.g., Hong Kong Chinese) and the traits and abilities relevant for maintaining these (e.g., loyalty, energetic perseverance; e.g., Liu, 1986; Markus & Kitayama, 1991). Successfully carrying out social roles and obligations and avoiding gaffs or failures in these domains are important sources of well-being and life satisfaction, making emotional restraint an important way of fulfilling one’s social obligations (Kim, Triandis, Kağıtçıbaşı, Choi, & Yoon, 1994; Kwan, Bond, & Singelis, 1997; Markus & Kitayama, 1991).

Collectivism and cognitive style. Social context, situational constraints, and social roles are assumed to figure prominently in person perception and causal reasoning within a collective framework, influencing not just what one thinks about but how one thinks as well (Choi, Nisbett, & Norenzayan; 1999; Liu, 1986; Miller, 1984; Morris & Peng, 1994; Newman, 1993). In this sense, meaning is contextualized and memory is likely to contain richly embedded details. This has been described as a Confucian “holistic” style (Nisbett, 2003) and more generally as a situation-specific relational “embedded and connected” cognitive style that influences not only social but nonsocial

cognitive and basic perceptual processes (Markus & Oyserman, 1989; Oyserman, Kemmelmeier, & Coon, 2002). Thus, collectivism facilitates perceptual attention to connections and relationships between figures and the context in which they are embedded—focusing on the forest rather than the trees.

Linking cognitive style to self-schema. Using somewhat different terminology, as outlined below, a number of theorists have linked between-group difference in cognitive style to between-group differences in self-structure. An early description comes from Triandis (1989), who proposed that collectivism is associated with the collective self, which makes social norms more salient as the basis for judgment. Although not quite using a language of cognitive style, Triandis (1989) suggests that self-concept cues a salient procedure, namely, the use of norms as the basis for judgment.

Correspondingly, Markus and Oyserman (1989) proposed that women and individuals from non-Western societies are likely to have self-schemas that focus on connection to others and that this connected self-schema structure is likely to carry with it a chronically accessible “connecting and integrating” cognitive style. Applying these self-schemas and cognitive styles to gender differences, these authors posited that men’s advantage over women in spatial ability tasks requiring the rotation of objects in three-dimensional space (especially under time pressure) may be due to likely between-gender differences in self-schema structure. Given socialization and evolutionary push to tend to, mend, and maintain relationships, women were posited to be more likely to have salient relational self-schemas that would prime a “connect and integrate” cognitive processing style and result in slower and less efficient mental rotation, a skill required to solve three-dimensional spatial tasks quickly and correctly. Given socialization and evolutionary push to stand out, men were posited to be more likely to have salient separate self-schemas that would prime a “pull apart and separate” cognitive processing style and result in quicker and more efficient mental rotation. Parallel to the argument made for gender, the authors argued for West/non-West difference in connection and separation as primary self-schemas.

Markus and Kitayama (1991) refined this model, describing non-Western self-construals as interdependent. Contrasting independent and interdependent self-construal, they provided an integrated review of the literature contrasting East, particularly Japan, and West, particularly the U.S. Drawing on a different literature but coming to parallel conclusions, Woike and her colleagues (e.g., Woike, 1994; Woike, Lavezzary, Barksy, 2001) also propose that individuals with “communion” self-concepts prefer a connecting and integrating cognitive style. Of these various terminologies, that of Markus and Kitayama has become widely accepted and has been further applied to gender differences in self-structure (Cross & Madson, 1997; but see Kashima et al., 1995, for a different perspective on gender and culture).

INDIVIDUALISM

Within an individualistic cultural frame, essential values are assumed to be individual freedom, personal fulfillment, autonomy, and separation; relationships are chosen, voluntary, and changeable, can be worked on and improved, or left when costs outweigh benefits (e.g., Morris & Leung, 2000; Sayle, 1998; Triandis, 1995). A basic self-goal is to feel good about oneself as a unique and distinctive person and to define these unique features in terms of abstract traits. Open emotional expression, free choice, and attainment of one’s personal goals are important sources of well-being and life satisfaction (e.g., Diener & Diener, 1995).

Individualism and cognitive style. With regard to cognitive style, meaning is de-contextualized because individualism promotes a de-contextualized reasoning style that assumes social information is not bound to social context. This reasoning style has been variously described as an analytic style (e.g., Nisbett, 2003) or a “separate and pull apart” style influencing not only social but nonsocial cognitive and basic perceptual processes (Markus & Oyserman, 1989; Oyserman, Kemmelmeier, & Coon, 2002). Thus, individualism facilitates perceptual attention to distinctions and separations between figure and ground—focusing on the trees rather than the forest (e.g., Markus & Oyserman, 1989).

Linking cognitive style to self-schema. Triandis (1989) proposed that individualism is associated with focus on the private self, which makes personal preference more salient as the basis for judgment. Similarly, Markus and Oyserman (1989) proposed that men and individuals from Western societies are more likely to have separated self-schemas that highlight boundaries between self and others and that the basic self-schema structure is likely to carry with it a chronically accessible “pull apart and separate” cognitive style. Markus and Kitayama (1991) describe Western self-construals as likely to be “independent.” Moreover, Woike and her colleagues (e.g., Woike, 1994; Woike et al., 2001) also describe individuals with “agency” self-concepts as preferring a distinguishing and separating cognitive style.

SUMMARY OF THE CONCEPTUAL LITERATURE ON INDIVIDUALISM AND COLLECTIVISM

Taken together, models that associate individualistic and collectivistic cultural syndromes with cognitive style converge on the proposition that each syndrome is associated not only with content but also with process. Each syndrome is hypothesized to have a signature cognitive procedural style, with many models assuming that the influence of cultural syndrome on cognitive style is linked to differences in salient self-concept content. However, to our knowledge, these assumptions have not been isolated experimentally.

It is possible the cultural syndromes cue differences in content of self-concept and cognitive style independently. Alternatively, structure and content of self-schemas may be linked to cognitive style so that if one is cued, the other is also cued. If the two are linked, it may be that the cuing one may cue the other equally, or it may be that effects are uni-directional; for example, cued content of self-schemas mediate cued differences in cognitive style, but not the reverse. Thus, it is unclear from previous research whether self-concept mediates the influence of individualism and collectivism on cognitive style or if some common underlying mindset influences how the self is construed and how the cognitive procedures are brought to mind more generally. For this reason, we use the broader conceptualization of individual versus collective cultural syndromes to reflect networks of integrated content and psychological processes that together produce differences in self-concept, values, relationality, well-being, and cognitive styles.

As described in the following section, individualism and collectivism are associated with content (e.g., defining the self in terms of traits or group memberships) and process (e.g., likelihood of assimilating new information or contrasting new information with existing knowledge). Of course, in many situations outside the laboratory, content and process may be simultaneously salient. For example, collectivism may involve noticing and appreciating similarities between oneself and in-group others and may also make salient relevant procedures, such as assimilating or integrating. Theoretically, however, content and process are separable; a person may be primed to remember contextual cues or primed to think of himself as a team member. To the extent that content and process are associated, then cuing one should cue the other.

EVIDENCE FROM CROSS-CULTURAL RESEARCH

A meta-analytic synthesis from our lab (Oyserman, Coon, & Kemmelmeier, 2002) supports the general assumptions of the individualism and collectivism cultural syndrome model with regard to values, ways of relating to others, and self-concept (well-being research is still open to interpretation). Emerging cognitive style research also provides strong support for the hypothesized differences in individualistic and collectivistic cultural syndromes. Below we provide a brief and targeted synopsis of the meta-analytic findings. We also provide a somewhat broader review of the culture and cognition literature. Generally, if a situated condition model is to be useful, it should be possible both to replicate prior cross-national findings using this perspective and also to document that effects are found when proximal situations cue the individualistic and collectivistic cultural lenses through which individuals perceive and make sense of the world.

Values. On average, European Americans endorse values of individualism more and values of collectivism less than Africans, Eastern Europeans, Asians, and Asian Americans. Differences between European Americans and members of other English-speaking countries (e.g., Australia, Canada, Great Britain, and New Zealand) are not significant, suggesting a common cultural core of high individualism and low collectivism. Latin Americans are higher overall in collectivism but not lower in individualism—a cultural syndrome that fits the twin ideas of machismo and simpatico. Combined effect sizes for comparisons with East Asia, Africa, and the Middle East are at least moderate in size and corroborate conventional expectations of cultural theorists.

Although there seems to be a uniquely Anglo and American way of being (high individualism and low collectivism), Oyserman and colleagues' (2002) review did not support a simple East-West dichotomy. It consequently challenged the notion of a single “Western” culture and the assumption that high individualism and low collectivism is part of a Western European tradition that was brought to America and, therefore, was particularly accessible to European Americans. Several findings are noteworthy. For example, European Americans are *lower* in collectivism than Western Europeans. In contrast, value differences between European Americans and Asians are often small and sensitive to scale content. European Americans are also lower in individualism than African Americans, but the groups do not differ in collectivism. These results suggest a patterned clustering of values and also a pressing need for a more nuanced approach to understanding how individualism and collectivism matter both between *and within* societies. A situated approach addresses these issues and offers testable causal hypotheses.

Relationality. On average, individualism and collectivism as cultural syndromes are associated with differences in relationality and group relations. Individualism is associated with the ease of interacting with strangers and a preference for a direct rather than indirect communication style. Collectivism is associated with a greater preference for in-group members than out-group members in interpersonal relationships and some forms of face saving. The size of the effects is highly variable, especially for conflict management, but is often in the moderate-to-large range.

Work-based organizational research allows for stronger conclusions than studies of close relationship and in-group/out-group relations because they are more likely to include a direct assessment of individualism and collectivism, experimental manipulations, and cross-national comparisons rather than comparisons within the U.S. alone. To the extent that the cross-national differences in work-based preferences were demonstrated to shift systematically with proximal situational cultural syndrome cues, research in this domain has the potential to address concerns about global and diverse workplaces and markets. Moreover, a situated perspective can address the “levels” of collectivism issue (relational versus group; e.g., Brewer & Chen, 2007), which is not yet clearly addressed in the cross-national literature. Research to date cannot clarify whether cultural syndromes that cue connections or relationships with specific others (e.g., friends or family members) have the same effects as cultural syndromes that cue connection with and obligation to larger social groups (e.g., ethnic or tribal group).

Self-concept. Research reviewed in the previous meta-analysis had a weak inferential basis, simply comparing groups within the U.S. or comparing a U.S. group and another country group. This research has assumed that differences in self-concept are due to individualistic and collectivistic cultural syndromes. However, large effects were found in studies that directly assessed individualism and/or collectivism and related these cultural syndromes to self-concept content. Research demonstrating that proximal cues can “turn on” relational, group-collective, or individual-difference focused self-concept content would be immensely useful as a bridge between social identity theory-based models of self-concept (which suggest that all self-concepts contain social elements) and the cross-cultural psychology-based models that emphasize between-society differences in whether social content is included in the self (see Oyserman, 2007, for a review). Showing that different levels of collectivism can be situationally cued could provide more nuanced information about how the self-concept functions.

Well-being. On average, Hofstede's (1980) individualism ratings for various countries tend to be moderately correlated with life satisfaction. However, individualism has an effect primarily in research that does *not* control for country differences on other variables (e.g., GNP, national wealth). Research that controls for these confounds shows smaller effect sizes attributable to individualism (e.g., Arrindell et al., 1997). A situated approach may shed light on the causal process by isolating the systematic influence of a relational, a group-collective, or an individual focus on what criteria individuals utilize to assess their overall well-being.

Cognition. The endorsement of an individualistic cultural syndrome is correlated with an increased use of trait-based inferences and a decreased use of situation-cued recall (among American undergraduates; Duff & Newman, 1997, Studies 1 and 2; Newman, 1993, Studies 1 and 2). Indeed, the possibility that culture influences not just what one thinks about but also how one thinks is particularly intriguing and supported by an increasing number of studies (see Nisbett, Peng, Choi, & Norenzayan, 2001; Norenzayan, Choi, & Peng, 2007). Much of this research compares Americans to another national group and assumes cross-national differences in cultural syndrome. For example, Nisbett and colleagues (2001) and Norenzayan and colleagues (2007) describe the West as "analytic" and the East as "holistic" in cultural syndrome.

Other research simply demonstrates differences in cognitive styles. For example, American students are more likely to focus on dispositions rather than situations in providing rationales for behavior or explaining causality (compared with Saudi students; Al-Zahrani & Kaplowitz, 1993). American students are faster and more accurate in recalling abstract and central information, whereas Chinese are more accurate in recalling details, background, and elements of the whole visual field, and Japanese are more accurate in recalling proportions between elements (Norenzayan et al., 2007).

Female gender (Kemmelmeier & Oyserman, 2001a) and interdependent self-concept (Kemmelmeier & Oyserman, 2001b) are both associated with the tendency to assimilate social information into one's self-concept, even if the information is negative. Specifically, when asked to think of a person who is similar to oneself and doing poorly in school, women and those with higher interdependent self-concept are more pessimistic about their own chances of success than are men and those with more independent self-concepts. Woike and her colleagues (e.g., Woike, 1994; Woike, et al., 2001) demonstrate an association between agency (communion) self-schema, and distinguishing and separating (connecting and integrating) cognitive style.

This self-schema based difference in basic cognitive processing styles has also been corroborated in more explicitly experimental paradigms (e.g., Hannover & Kühnen, 2004; Kühnen, Hannover & Schubert, 2001; Kühnen & Oyserman, 2002). For example, in a memory task, participants were told that they would be asked to remember objects presented to them. Those primed with independence and those primed with interdependence were equally good at remembering the objects. They differed, however, in their incidental encoding of relationships; those primed with interdependence were better able to remember where objects were on the page. This research provides evidence that when primed, independent self-concept is more associated with a "separate" cognitive style; and that when primed, interdependent self-concept is more associated with an "integrate" cognitive style.

Lee, Aaker, and Gardner (2000) and Aaker and Lee (2001) make a similar distinction but focus on additional cognitive styles. They provide evidence that being from a collectivistic society or thinking about oneself as a member of a group cues a prevention-focused cognitive style in which one is concerned about the negative consequences of behavior and avoiding failure, whereas being from an individualistic society or thinking about oneself as an individual cues a promotion-focused cognitive style in which one is concerned about positive consequences of behavior and attaining successes. Taken together, these results converge on the notion that each cultural syndrome has a signature cognitive processing style and that this style may be cued by different ways of thinking about the self.

A SITUATED MULTI-SYNDROME MODEL OF CULTURE

How are cultural syndrome effects to be interpreted? As we noted earlier, one possibility is that cultural syndromes are based in distal cultural features such as philosophy, religion, or language and that these features have direct current consequences for values, relationality, self-concept, well-being, and cognition. While initially plausible and certainly congruent with some approaches to cross-cultural difference (e.g., Nisbett, 2003), as will be outlined below, a number of studies suggest that “distal” features, such as a society’s philosophical tradition, do not have a direct effect in and of themselves but rather have an effect by making certain subjective construals and cognitive procedure more likely to come to mind than others.

SITUATED EFFECTS

We propose that rather than assuming that distal features of a society directly impact current self-concept, cognition, and behavior, these distal features are better understood as having their influence via their impact on more proximal features. In particular, distal features impact the likelihood of experiencing a particular set of current situations or situational constraints, and more importantly, influence how one is likely to interpret, make sense of, and respond to these situations. This assumption of mediated effects, rather than a straightforward prediction from a distal past to a current situation, is necessary because, as we outline below, the evidence does not support a direct effect of the distal past. First, even when the same situations occur, they may not carry the same meaning. Thus, although Japanese and American students describe similar situations as self-esteem increasers or decreasers, when they are given a set of situations to rate, Americans rate more situations as potentially increasing self-esteem, and Japanese rate more situations as potentially decreasing self-esteem (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). Second, as will be detailed below, even when situations are superficially the same (e.g., one is speaking in English), subjective meaning (e.g. why am I speaking in English?) rather than external similarities predicts outcome.

Subjective construal matters. Why might this be? We propose that subtle features of the situation can be critical in turning on or cuing a particular cultural syndrome, which, once cued, provides meaning. The same situation (e.g., speaking English) can carry different meanings. It can cue a collective or an individualistic cultural syndrome response, depending on subjective meaning in context. Language itself does not automatically prime either individualism or collectivism; rather, what is primed depends on what using the language seems to be about.

English can be a reminder that one is Chinese, as demonstrated in two studies conducted in Hong Kong while it was still under British rule. In these studies, being randomly assigned to fill out a values questionnaire in English was associated with higher endorsement of Chinese cultural values (among Hong Kong Chinese students; Bond & Yang, 1982; Yang & Bond, 1980). However, English, when its use seems natural in context, can also cue individualism, as demonstrated in two studies conducted in the U.S. and Canada. In one study, Russian immigrants to the U.S. who were randomly assigned to structured recall tasks in an all-English response format (rather than an all-Russian response format) were more likely to generate self- rather than other-focused memories (Marian & Kaushanskaya, 2004). In another study, Chinese students studying in Canada were randomly assigned to a values and self-concept questionnaire presented in English or in Chinese. When presented in English, Chinese students’ responses were not significantly different from European heritage Canadians. When presented in Chinese, however, responses were significantly different and in the direction predicted from collectivist values and content of self-concept assumptions (Ross, Xun, & Wilson, 2002). Thus, across studies, language itself was not the predictor; rather, it was the (potentially nonconscious) sense made of this situation that influenced results.

Another example of a study demonstrating the importance of the sense made of the situation involves a German-Chinese comparison (Haberstroh, Oyserman, Schwarz, Kühnen, & Ji, 2002). In this study, Haberstroh and her colleagues drew on previous evidence that the information brought

to mind in response to one question remains available for re-use in responding to subsequent questions. Thus, when asked about satisfaction with one's social life and then asked about satisfaction with life in general, German respondents gave highly correlated answers (in essence giving the same answer twice) unless they were told to set aside their previous answers and think about other potential aspects of life satisfaction. The researchers hypothesized that repeating the same answer twice would be less likely when a collective cultural syndrome was cued because respondents would more likely be attuned to the needs of the questioner, who would unlikely be interested in learning the same information twice. Indeed, Chinese respondents were significantly less likely to give redundant answers than German respondents. More importantly, the researchers demonstrated that they could produce the same results among German respondents as Chinese respondents by first priming German respondents with a collective cultural syndrome.

Taken together, these results suggest that small and seemingly incidental features of the situation (e.g., using English in Canada versus Hong Kong, reading plural first-person pronouns) can cue cultural syndromes and that, once cued, a cultural syndrome will influence what content and process knowledge seem relevant to the task at hand. This simply would not be predicted by models focused on the predictive power of cross-societal differences in distal features, because cross-societal comparisons imply stable between-group differences rather than situational malleability both within and between groups. At first glance, the idea that both an individualistic and a collectivistic cultural syndrome can be cued within a society (because both individualism and collectivism are part of every society's cultural syndromes) may feel contradictory to a "societal-level" understanding of a society's culture as either high in individualism (and necessarily low in collectivism) or high in collectivism (and necessarily low in individualism).

Construal is flexible, depending on what is primed in the moment. While unidimensional models are pictorially simpler, they do not fit the lived experience of "culture" (e.g., Bontempo, 1993; Kağıtçıbaşı, 1987; Lehman, Chiu, & Schaller, 2004; Oyserman, 1993; Rhee, Uleman, & Lee, 1996; Singelis, 1994; Sinha & Tripathi, 1994; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). Twenty years ago, Triandis and his colleagues (e.g., Triandis et al., 1988) suggested that individuals have both collectivist and individualist cognitive "bins" that function separately. Moreover, it is not logical that both syndromes would not be simultaneously present: All societies need to survive over time, requiring some elements of collective cultural syndrome to be cue-able, even if not chronically salient. Similarly, all societies are made up of individuals experiencing the same evolutionary and natural selection processes. Given the universality of both a basic sense of bodily and spatial-symbolic separateness (Burris & Rempel, 2004) and a sense of social connectedness and need to belong (Baumeister & Leary, 1995; Brewer, 1991), it seems plausible that human minds are structured to see both separation and connection (see Cohen, 2001; Oyserman, Kemmelmeier, & Coon, 2002).

A situated multi-syndrome model suggests that all societies incorporate multiple cultural syndromes, including individualism and collectivism. Thus, cultural syndromes are cue-able across all societies. That is, members of societies that are typically assumed to be high in individualism (e.g., Germany and the United States) can be primed to see the world within a collective cultural frame, and members of societies typically assumed high in collectivism (e.g., Hong Kong and China) can be primed to see the world within an individualistic cultural frame. While being socialized in a particular society is likely to shape one's propensity to construe situations as being about a particular syndrome (in our case, individualism or collectivism), a situated multiple-syndrome model suggests that priming can override these propensities.

How DOES THE PROCESS WORK?

We assume that individuals across modern societies have access to both individual and collective cultural perspectives, even if one syndrome or the other is more chronically turned on or cued. What is not yet clear from this literature is the mediating process. How are contextual cues translated

into differences in values, self-concept, ways of relating to others, cognitive style, and, potentially, goals?

Literature to date sets the stage for two models. One model focuses on the self as the mediating cognitive structure that carries with it content and goals as well as cognitive procedural knowledge. The other model does not evoke the self, focusing instead directly on the procedures likely to be cued in cultural contexts, with two main classes of procedures described: those related to inclusion, assimilation, and field-dependent reasoning, and those related to exclusion, contrast, and field-independent reasoning. The evidence summarized below can be used to support both of these models because researchers often asserted that what they primed was self-concept.

However, simply because a prime is labeled as being about self-concept does not rule out the possibility that what is primed is a general cognitive procedure. The reverse is also true; simply because a prime is not labeled as being about the self-concept does not rule out the possibility that what is primed is self-concept. Future research must experimentally isolate these possibilities to clarify processes beyond labeling of primes.

Our focus. We focus on an emerging literature that attempts to document the effects of priming cultural syndromes. We address a number of still open questions about the robustness and generalizability of these effects. We ask: (a) Can individual and collective cultural syndrome be primed with equal effect in the East and the West? (b) Are effects of cultural-syndrome priming dependent on priming method or outcome? (c) Are effects of priming cultural syndrome of similar magnitude to cross-cultural effects? (d) Is it possible to document effects of cultural-syndrome priming for both individual cultural syndrome and collective cultural syndrome? (e) With regard to collective cultural syndrome, are effects of similar direction and magnitude when relational-level or group-level collectivism is primed?

As demonstrated in Haberstroh and colleagues' (2002) priming study, a situated multi-syndrome model is a better fit to the evidence than a distal fixed-features model. A distal fixed-features model would predict the initial difference between Chinese and German respondents but would not predict the reversal of the "German" effect after priming. One shorthand way to describe Haberstroh and colleagues' findings is to say that German participants were "turned into" Chinese participants, at least for a few moments. This shorthand provides a vivid picture but is misleading to the extent that participants did not require deep knowledge about another society (e.g., Chinese collectivism) to be influenced; rather, they were influenced because the cultural syndrome (collectivism) was available to be cued as part of German social knowledge. In the same way, we are not suggesting that cultural-syndrome priming effects are limited to certain individuals with special bicultural knowledge due to migration, learning multiple languages, and exposure to Western media and American movies (for example, see Hong, (this volume)). Rather we suggest that all societies provide socialization experience with multiple cultural syndromes so that each can be cued.

Insights that can be provided by research on biculturalism. Of course "biculturalism" in the traditional sense can occur as a result of these processes, and an explicitly bicultural model in the traditional sense has been articulated by Hong and her colleagues (e.g., Hong, this volume). Their model suggests that individuals with deep experience in more than one society can be cued to function like members of either society through cuing of relevant cultural icons (e.g., the Great Wall of China, the Statue of Liberty). Cuing cultural icons cues deep cultural knowledge, including, but not limited to, information about individualism and collectivism. The bicultural model assumes that non-bicultural Chinese have exposure only to a "Chinese" (e.g., collectivist) cultural syndrome and similarly, that non-bicultural Americans have exposure only to an "American" (e.g., individualist) cultural syndrome; the model could not predict the results of the Haberstroh priming study since the German students could not be assumed to be bicultural in the sense of exposure to "Chinese" culture. In that sense, our situated model is both more general in population eligibility (anyone can be primed to focus on individualism or collectivism, not only those with deep cultural knowledge of multiple societies) and also more targeted in content (we focus on one particular cultural syndrome,

individualism and collectivism, rather than all of the multi-syndrome attributes of culture more broadly defined).

Religion, worldview, dominant philosophy, and other factors that are assumed to make up cultures are complex and can include redundant, overlapping, or conflicting aspects. This complexity rules out the possibility of clear a priori specification of which particular “active ingredients” underpin effects in cross-national comparisons or when cultural icons are used to prime culture in bicultural models. By focusing on real differences (e.g., in where one lives, in the language one speaks), cross-national comparisons provide high ecological validity. Beyond simply showing that people from two cultures differ, the goal of this kind of research is to document an association between these differences and how individuals make sense of themselves, their social worlds, and how they think more generally. Unfortunately, the potential for ecological validity typically comes at the expense of specificity. Cross-national comparison and bicultural studies are less likely to address the multiplicity of cultural syndromes within each society and cannot pinpoint the nature of the active ingredients within any particular cultural syndrome. When heterogeneity is sought only within bicultural individuals, the implication is that effects are due to exposure to different societies rather than exposure to the multiple cultural syndromes within a society. When comparisons are cross-societal or are based in cuing cultural icons among bicultural individuals, even when differences are found, the active ingredients producing these differences are not clear. Differences may be due to differences in collectivism, in sensitivity to power differences, in concern for honor or face, or in a variety of other unspecified factors.

PRIMING CULTURAL SYNDROMES

Why use priming? To pinpoint when, how, and which elements of cued cultural syndromes matter, it is necessary to experimentally manipulate the salience of particular components of a cultural syndrome (e.g., an individual or a collective cultural syndrome) and to compare effects of bringing active ingredients of each syndrome to mind. The idea that culture sets up procedural knowledge that is cued in context was articulated over 20 years ago (Liu, 1986). While this earlier formulation focused on procedural knowledge about how to engage with others and how to go about learning in the context of Chinese culture, an emerging broader body of literature involves the use of experimental techniques based in social cognition research to prime aspects of individualism or collectivism. By studying specifically primed active ingredients of a particular cultural syndrome, the priming method can isolate effects on outcome measures of interest.

Priming generally involves making content and/or procedures temporarily accessible. The influence of construct accessibility on social perception is well documented (Higgins & Bargh, 1987; Higgins, Rholes, & Jones, 1977). Accessibility can be the temporary result of priming (Srull & Wyer, 1978, 1979) or a more chronic result of routine or habitual activation of a construct in one's everyday environment (Higgins, 1989, 1996). Temporary and chronic accessibility effects on social judgments are comparable in nature and additive in quantity (Bargh, Bond, Lombardi, & Tota, 1986; Rudman & Borgida, 1995). Recent priming and chronic activations are both predictive of construct accessibility.

In the lab, priming typically involves having participants engage in a series of tasks. Participants are not made aware of the researchers' intent to influence them. Unbeknownst to participants, the semantic content and procedural knowledge cued by the first task (prime) carries or “spills” over to subsequent tasks (outcome measures). This spillover effect can be studied by comparing groups exposed to different primes. Priming experiments typically involve simple between-subjects designs that ask how engaging in task “A” influences responses to task “B”.

Priming studies can create an experimental analogue of chronic between-society differences by temporarily focusing participants' attention on cultural-syndrome relevant content (values, norms, goals, beliefs, and attitudes) and cultural-syndrome relevant cognitive styles. By comparing the effects of priming a (collectivistic or individualistic) cultural syndrome with (hypothesized or

documented) between-society differences, researchers can examine the extent to which between-society differences are actually due to the primed active ingredients of a particular cultural syndrome. Experiments also provide the possibility of studying whether effects associated with one society (e.g., individualism and the U.S.) can just as well occur in another when primed (e.g., effects of priming individualism in China).

Of course, cultural-syndrome priming tasks can only be effective if the content and procedures relevant to the cultural-syndrome exist in memory. Thus, individualism cannot be primed if one has only collectivism-cultural syndrome relevant content and procedural knowledge. In the same vein, priming collectivism is ineffective if one has only individualism-cultural syndrome relevant content and procedural knowledge. Moreover, because societies differ in many ways, not all of which are likely to be mapped neatly into cultural syndromes of individualism and collectivism, primes need to be tested across societies to see if they cue the same response.

Content priming. Also described as conceptual priming, content priming involves activation of specific mental representations such as traits, values, norms, or goals which then serve as interpretive frames in the processing of subsequent information (Bargh & Chartrand, 2000; Higgins, 1996). Once a concept is primed, other concepts associated with it in memory are also activated (“spreading activation”; Neely, 1977). For example, previously stored goals (e.g., for achievement, for power, for remembering, for impression formation) can be primed without explicit, conscious intention formation (e.g., Bargh, 1990; Chartrand & Bargh, 1996). Average between-society or between-racial or -ethnic group differences attributed to differences in cultural syndrome may be due to chronic differences in the likelihood that particular conceptual networks will be primed in everyday situations (e.g., hard and soft embodiments; as described by Leung & Cohen, 2007a, 2007).

Cognitive-style priming. While conceptual priming activates a concept or meaning structure, cognitive-style or mindset priming activates a way of thinking or mental procedure (Bargh & Chartrand, 2000). Mindsets can be thought of as a procedural toolkit used to structure thinking; mindsets tell us how to think and provide ways of reasoning about the world, also termed heuristics or naïve theories. Procedures tell us how to process information to make sense of experience (Schwarz, 2002, 2006). Mindset priming involves the nonconscious carryover of a previously stored mental procedure to a subsequent task. Procedural priming may be conscious, but we focus particularly on nonconscious procedures, that is, procedures that are cued outside of awareness and used because, being at hand, they are assumed to be relevant to the task at hand.

Priming cultural syndromes. According to Oyserman and Lee (2008), a number of tasks have been used to prime individualism and collectivism, including standard priming procedures such as unscrambling a series of sentences containing syndrome-relevant words. Across this field, however, the three most common priming tasks were developed specifically for this work. One task involves reading a paragraph about a day in the city and circling the first-person singular (I, me, myself) or plural pronouns (we, us, ourselves; Gardner, Gabriel, & Lee, 1999) embedded within it. A second involves imagining similarities (collectivism) or differences (individualism) from family and friends (Trafimow, Triandis, & Goto, 1991). A third involves imagining a Sumerian warrior who chooses a general based on skill (individualism) or family and group ties (collectivism; Trafimow et al., 1991).

To demonstrate that cultural-syndrome priming techniques can be used to evoke what is understood to be “culture,” a first task is to demonstrate that cultural-syndrome priming does in fact evoke culturally relevant content (values, ways of defining the self, and ways of interacting with others) across different societies and regions of the world. Priming collective cultural syndrome (compared to individualistic cultural syndrome) should make collectivistic (individualistic) values more salient and likely to be endorsed, render relational and group membership (individual traits, unique self-features) content of self-concept more accessible and likely to be recalled, and heighten (reduce) felt closeness to in-group members. This effect should be found in both the East and the West and should not depend on other characteristics (e.g., knowing multiple languages). Showing effect on

content is to be considered our first task because accessible content is typically what is meant by “culture” in its broadest sense.

Once an impact of cultural-syndrome priming on salient content has been demonstrated, a second task is to demonstrate that cultural-syndrome priming also evokes culturally relevant cognitive procedures across different societies and regions of the world. Priming collective cultural syndrome (compared to individualistic cultural syndrome) should make collectivism-relevant (connect, integrate, compromise, assimilate judgment to norms, and social information) *cognitive procedures* salient; priming individualistic cultural syndrome should make individualism-relevant (separate, contrast, exclude) *cognitive procedures* salient. Prior cross-national research suggests differences in content and cognitive styles. If these are shown to be stable within and between societies when the relevant cultural syndrome is primed, then it can be argued that the proximal impact of culture occurs via situated construal and situated cuing of relevant cognitive procedures.

WHAT IS THE EVIDENCE THAT WE HAVE ISOLATED AT LEAST SOME OF CULTURAL SYNDROME'S ACTIVE INGREDIENTS VIA PRIMING?

We hypothesize that priming an individualistic (relative to a collectivistic) cultural syndrome will (a) enhance endorsement of individualistic values and reduce endorsement of collective values; (b) make unique traits and attribute-based elements of self-concept more accessible, and social or relational-based elements of self-concept less accessible; (c) dampen felt closeness and obligation to in-group others and reduce sensitivity their needs and goals; and (d) enhance the accessibility of contrasting, pull apart, distinguish-and-separate, or personal goal-attainment focused processing strategies and reduce the accessibility of assimilating, connect-and-integrate, norm and compromise, or prevention-focused processing strategies.

To examine these hypotheses, we draw upon a recent meta-analysis of the individualism and collectivism cultural-syndrome priming literature through January 2005 (Oyserman & Lee, 2008). Meta-analytic techniques involve calculating overall effect sizes across studies, accounting for the sample size of each study and, by increasing the range of variables, facilitate examination potential moderators of effect sizes by coding particular aspects of each study in the relevant literature. For example, across studies it is possible to ask if effect sizes differ by priming task, by outcome variable, or by characteristics of the sample.

Oyserman and Lee conducted a main meta-analysis on the 67 studies (with 6,240 participants) that primed both individualistic (independence) and collectivistic (interdependence) cultural syndromes and assessed effects on values, relationality, self-concept, well-being, and cognition. Fourteen of these 67 studies (1,664 participants) included both the cultural syndrome primes *and comparison to control*. These studies were used to draw inferences as to the relative size of effect when priming individualistic cultural syndrome and collectivistic cultural syndrome, something that cannot be learned from the first set of analyses, which simply demonstrate the relative effect of priming individualistic versus collectivistic cultural syndromes. A final analysis focused on 32 studies (with 2,939 participants) that were not included in the main meta-analysis because the prime itself was difficult to interpret or because data were reported for only one of the two priming tasks (either individualism or collectivism). By examining whether effect sizes differed for this latter set of studies as compared to the initial “cleaner” studies, the authors were able to demonstrate that effects are robust.

Effects of priming individualism versus collectivism. Oyserman and Lee (2008) report a moderate effect of cultural-syndrome priming overall, and effects are not substantially different for their analyses of the 32 studies that primed only individualism or only collectivism. They found moderate effects of priming on relationality, cognition, and values, and a small effect of priming on self-concept. In the latter two cases, operationalization mattered. That is, effects were small if value items other than ones from the more established value scales (i.e., Schwartz, 1992; Triandis,

1995) were used. With regard to self-concept, effects were small and heterogeneous, suggesting that there is significant variability in the sizes of the effects of cultural-syndrome priming on self-concept across studies. Thus, multiple potential moderating variables may be important for explaining the variability in effect sizes, including the method used to assess self-concept or prime individual versus collective cultural syndromes. Analyses examined these potential moderators, though a clear understanding of the factors that explain this heterogeneity across studies was not obtained.

In addition to examining the effect of priming cultural syndrome overall, Oyserman and Lee (2008) examined potential differential effects when relational, group, or both relational and group levels of collectivism are primed. This was possible because collectivism cultural-syndrome priming tasks focus on the collective self (e.g., using “we” as a prime), on specific aspects of the collective self (e.g., similarity with or obligation to family, friends, and larger groups such as teams), or on connection and integration more generally (e.g., using “connect” as a prime). This allowed for categorization to levels of collectivism primed as either relational-level, group-level, or both. Priming effects were moderate in size (and substantially larger) when both levels of collectivism were primed rather than only one.

As is typical in the psychological literature, university students were the focus of enquiry. Only two studies had non-university student samples, and most studies did not provide analyses by gender. Studies were obtained from North America (mostly from the U.S.), Southeast Asia (mostly from Hong Kong), and Western Europe (Germany and the Netherlands). Thus, in the priming literature published to date, there is an over-representation of American, German, and Dutch participants, with other societies represented via East Asian (primarily Hong Kong Chinese) and Asian American samples, but omitting Americans other than European American and Asian American. Moreover, as we outline below, even when East Asian participants were used, priming tasks were typically in English or used language as the prime. We address both of these gaps in our own current research, demonstrating effects in the expected direction when Korean and Hong Kong Chinese participants are primed in their native languages as well as for African Americans, as we summarize in a later section.

Across studies, European American/Western European effect size was moderate, Asian American effect size was large, and East Asian effect size was small. Moderator analyses suggest that these East-West differences in size of effect of cultural-syndrome priming are due to use of different priming tasks in East and West and with more reliance on language as a prime in studies in the East. Thus, given the information available, it seems reasonable to argue that individualistic and collectivistic cultural syndromes can be primed in the East and the West when using the Sumerian Warrior and the Similarities and Differences to Family and Friends task.

It is not yet known if the pronoun-circling task is effective in the East and effects for scrambled sentence tasks are small. Effects are moderate for both East and West when the outcome of interest is values and cognition. However, most cognition studies in the East focus on attitudes and social cognition, and much less is known about nonsocial cognition. None of the studies using Asian participants examined effects on relationality. Effects of self-concept were difficult to interpret and seemed to point to less malleability of content among East Asians, but this may be due to the nature of the coding schemes used.

In sum, though questions still remain to be addressed by future research, the meta-analytic summary suggests that a variety of priming techniques can be used to cue individualism or collectivism, and that across domains, primes produce effects in the expected direction. This chapter does not fully unpack how salient cultural syndromes influence these outcomes and whether individuals are universally equally sensitive to these effects. However, research to date suggests that effects occur in both East and West.

One priming task that produced widely varying results was use of language as a prime. As noted by early (Liu, 1986) and more recent reviews (e.g., Chiu, Leung, & Kwan, 2007; Norenzayan et al., 2007; Wang & Ross, 2007), language is related to culture, memory, and cognition. A number

of authors have shown interesting language correlates, highlighting differences in language use depending on the nature of dependency with one's conversation partner (de Montes, Semin, & Valencia, 2003) and also differences in the structure of language, particularly use of concrete as compared with abstract language (operationalized as verbs as compared to adjectives) in describing life events as well as others (e.g., Stapel & Semin, 2007). While studies using language are limited to participants who are multi-lingual, potential effects of language can be operationalized and studied with other primes, thus disentangling language from other culture-relevant factors.

This process is exemplified by Semin, Görts, Nandram, and Semin-Goossens (2002) and Maass, Karasawa, Politi, and Suga (2006), who provide evidence of cross-national difference. For example, Maass and her colleagues find that Italians favor abstract language (context-free adjectives as descriptors) and Japanese favor concrete language (context-limiting verbs as descriptors). Stapel and Semin (2007) go on to demonstrate that language effects can be mapped onto cued differences in global and local reasoning. Our interpretation of the available data is that the meaning of language is highly contextualized and influenced both by the meaning given to the request to use one language or another and its interface with the nature of the task.

Comparison to control. Recall that Oyserman and Lee (2008) also found a subset of studies that included a no-prime comparison group. These studies were sometimes difficult to interpret because participants in the control condition were likely to be heterogeneous with regard to whether they brought an individualistic or collectivistic focus to the task. However, these results also suggest effects of priming. Priming either individualistic or collectivistic cultural-syndrome significantly shifted responses compared to control, and effect size did not differ by individualism versus collectivism prime, and effect size did not differ by individualism versus collectivism prime. However, though not differing in average effect size, studies that compared individualism priming to control and studies that compared collectivism priming to control did differ in another important way. On average the studies that focused on the effect of individualism showed about the same effect size (they were not heterogeneous), whereas the studies that focused on the effect of collectivism differed among themselves in effect size (they were heterogeneous). Larger effects were found when both relational and group-level collectivism were primed and effects of priming collectivism compared to control ranged from very small for relationality and self-concept to moderate for values and cognition. Only three studies involved Asian participants, so a difference between East and West cannot be established.

Priming studies that included either a prime for individualism or a prime for collectivism but not both showed overall effects similar to those found for studies including both primes in spite of the heterogeneity in their choice of comparison group, lending support to the robustness of priming effects described in the main meta-analysis. With regard to region of the world included, while participants from the U.S., Germany, the Netherlands, and Hong Kong were again represented, these studies also included participants from Canada, the United Kingdom, and Japan, providing some much-needed breadth to findings. A few studies begin to unpack effects of individual cultural-syndrome priming, separating effects of priming difference from effects of priming positive uniqueness. These results are important because they go beyond what can be tested with straightforward cross-national comparisons and provide a mechanism for testing dimensions of cultural syndromes such as individualism and collectivism.

INTEGRATION OF META-ANALYTIC RESULTS WITH OTHER EVIDENCE

Oyserman and Lee (2008) found eight studies that either directly compared data from within-country cultural-syndrome priming with a between-country comparison or compared results of cultural-syndrome priming in two countries. These results, in addition to the integration of results when priming and cross-national comparison data are compared, suggest that at least some active ingredients of culture can be primed in the moment. That is, they do not depend on lengthy socialization

in a particular society but rather are available for use, even if not chronically accessible, across very different societies.

Oyserman, Coon, and Klemmelmeyer's (2002) meta-analyses of cross-national comparisons between European Americans and others suggest a moderate-sized difference in endorsement of individualistic and collectivistic values with some caveats. Because cross-national comparisons are correlational, they cannot provide access to process, leaving open the question of whether individuals from different societies always differ in individualism and collectivism values or if the salience of these values depends on what comes to mind in the moment. Our review of the cultural-syndrome priming literature suggests that expressed endorsement of individualism and collectivism values is sensitive to situational priming, and that across priming tasks, effects are moderate in size when the kinds of value scales used in the cross-national literature are employed. Although the cultural-syndrome priming evidence comes mostly from European American and Western European participants, studies with Asian participants (primarily Hong Kong Chinese) show parallel effects. Priming cultural syndrome shifts salience of individualism and collectivism values to about the same degree that is found in the cross-national literature. The size of effect is comparable for European Americans and Asians and is influenced by the kind of prime used, with larger effects when the Sumerian Warrior and Similarities/Differences with Friends primes are used. When studies used comparison with control, effects were found in the predicted direction for both individualism and collectivism priming.

Just as size of effects of cultural-syndrome priming on values parallels the size of cross-national comparison effects, the size of effects of priming on relationality parallels the size of cross-national comparison effects. Both literatures suggest moderate-to-large effects of individualism and collectivism on ways of engaging with others. In addition, overall effects of priming cultural syndrome on relationality are robust regarding type of prime, with the exception of small effects when using language as a prime. Few studies include a control comparison group. However, those that do use a control generally find effects of both individualism and collectivism priming. Unfortunately, the cultural-syndrome priming literature on relationality is limited to Western samples. We found only one study assessing effects of cultural-syndrome priming on relationality using an Asian American sample (Gardner, Gabriel, & Dean, 2004), suggesting a need for further research in other regions of the world. That said, the fact that the effects of cultural-syndrome priming on individualism and collectivism values and social-relational engagement parallel the effects obtained in research on cross-national differences does provide some ecological validity to priming as a way of studying the active ingredients of cultural syndrome.

Effects of priming cultural-syndrome on self-concept are similar to effects found in cross-national comparisons. Both literatures heavily rely on content coding of responses to the Twenty Statements Task (TST) to obtain information about content of self-concept. When priming cultural syndrome is compared with a non-primed control group, effects on self-concept are larger when individualism is primed than when collectivism is primed. When impact of cultural-syndrome priming on the salience of collective self-descriptors is used, effects are consistent across gender but smaller for Asian than for Western samples. This is unlike the cross-national literature, where differences in content of self-concept are found for Asian samples, but it is less clear which aspect of culture influences this content. Effects are heterogeneous; whether they are based on the cross-national or cultural-syndrome priming data, differing samples produce differing estimates of the sizes of the effect. This may be due to the way that self-concept data are obtained and coded. That is, once a social identity is primed, either by cultural-syndrome priming task or by simply thinking of a social identity to list on the TST, the traits and attributes that become accessible are likely to be components of this public, relational, or collective self. However, any mention of traits is simply coded as part of the private self-concept in all the coding schemes we found. Of course, coding relies on what people actually write, not on the implied social context, which is not made explicit and so cannot be coded. This may explain why a number of studies report a preponderance of private self-content in individuals' working self-concept, regardless of whether an individual or a collective cultural

syndrome is primed and whether the individuals are European American or Asian (e.g., Lee et al., 2000, Study 2–4).

Finally, with regard to effects of cultural-syndrome priming on how we think, there is emerging and consistent evidence that priming cultural syndrome influences cognitive style. Thus, priming collective cultural syndrome increases the likelihood of assimilating information about another into one's self-rating. Similarly, priming individual cultural syndrome increases the likelihood of contrasting information about another with one's self-rating and of using the other as a standard of comparison, rather than assimilating knowledge about the other into self-knowledge. Moreover, cultural-syndrome priming shifts the use of pull-apart versus integrate-and-connect processes when nonsocial cognitive tasks are used as well. Thus, priming collective versus individual cultural syndromes shifts the speed of recognizing both embedded figures and big letters made up of smaller other letters (e.g., Kühnen & Oyserman, 2002). These effects parallel cross-national effects found by Norenzayan et al. (2007), Nisbett (2003), and Kitayama (e.g., Kitayama, Duffy, Kawamura, & Larsen, 2003).

This previous research on the nonsocial cognitive consequences of individualism and collectivism focused on visual perception. In this research, salient individualism cues perception of objects out of context, whereas salient collectivism cues perception of relationships. Missing are, first, a demonstration that these effects (using the same primes and tasks) can be replicated beyond European American and German participants, and second, demonstration that effects occur across modalities (these tasks focused on the visual field).

To that end, we replicated Kühnen and Oyserman's (2002) bound memory task (Study 2) among East Asian participants (Korean, Korean-American, and Hong Kong Chinese). We demonstrated consistent effects, that is, that compared to participants primed for individualism, those primed for collectivism perform equally well in remembering objects, but those primed for individualism are less able to recall the objects (Oyserman, Sorensen, Reber, Sannum, & Chen, 2008). To demonstrate that effects are robust across modalities, we also demonstrated the same pattern of effects using a color-word Stroop task and a listening task.

In the Stroop color-recognition task, participants read out loud color words that are either printed in color-congruent or color-incongruent ink. Fluency and therefore speed are impaired when the color of the ink and the color represented by the word are incongruent. We expected that participants primed for collectivism would be slower relative to those primed for individualism to the extent that collectivism cues an assimilating, connecting cognitive procedure. This is what we found. In the listening task, participants heard sounds in both ears but were asked to repeat sounds from one ear while ignoring the other. We expected that participants primed for collectivism would be slower and make more mistakes relative to those primed for individualism to the extent that collectivism cues an assimilating, connecting cognitive procedure (which would not be helpful in a task that requires ignoring some information). That is what we found.

To address lack of research including racial-ethnic groups in the United States beyond Asian Americans, we included African Americans in our research. Asian American, African American and European American participants were each primed with individualism or collectivism or not primed prior to solving word problems similar to those found in standardized tests. Across groups, performance improved with individualism priming and declined with collectivism priming and the comparison group was in between. Taken together, these studies provide consistent evidence for effects of priming individual versus collective cultural syndrome on nonsocial cognition in the East-West and across racial-ethnic groups in the United States.

CONCLUSIONS

The cross-national comparisons we have summarized suggest that societies differ and that these differences have consequences for individuals, influencing how the self is defined, how relationships with others are imagined, what is of value, and how the mind works. Furthermore, these differences are

patterned so that simplifying models focused on cultural syndromes can be used. Our focus on understanding culture within a situated cognition framework is not meant to argue against cross-national comparisons or examination of change over time with migration or use of bicultural individuals. Each of these has value in addressing part of the concerns that cultural psychology must address.

For example, cross-national comparisons can be high in ecological validity. After all, they demonstrate real differences between real groups. However, they are limited methodologically. By their nature, they focus on between-societal differences and cannot provide insight into the possibility that multiple overlapping and potentially contradictory cultural syndromes coexist in each society, influencing content and process of thinking when cued and not otherwise.

Moreover, in cross-national studies, there is a reliance on self-reports. A reliance on self-report survey response raises questions about the interpretability of self-reports and of comparisons across societies more generally. Even studies that move beyond this methodological limitation by demonstrating a cross-national difference in response to the same stimuli simply clarify that culture matters beyond differences in self-report. They cannot address how culture matters and cannot argue that the part of culture that matters is only that focused on individualism and collectivism.

For example, Jensen and Whang (1994) tested Los Angeles school children in grades 4 to 6, finding that Chinese children outperformed Anglo children by one-third of a standard deviation on the Raven's Progressive Matrices test, a task that requires pattern matching and noticing missing elements in visual displays. An interesting set of studies by Kitayama and his colleagues (2003) shows differential accuracy of American and Japanese respondents to line-drawing tasks requiring recall of lines, either in relation to provided background (tasks that Japanese respondents are better at) or separate from this background (tasks that American respondents are better at). Jensen and Whaley's results and Kitayama and colleagues' ingenious tasks drive home the idea that societies differ in their preferred cognitive procedures and are congruent with the notion that individual cultural syndrome cues a separate-and-pull-apart style and collective cultural syndrome cues a relate-and-connect style. However, these studies lack an experimental manipulation of cultural syndromes, and so they cannot illuminate the process by which particular factors of culture matter. Moreover, by their nature, they focus on between-societal differences and cannot provide insight into the possibility that multiple, overlapping, and potentially contradictory cultural syndromes coexist in each society.

This latter possibility has been raised by quite a number of scholars in various guises (e.g., Aaker & Lee, 2001; Bontempo, 1993; Hannover & Kühnen, 2004; Kağıtçıbaşı, 1987; Kemmelmeier & Oyserman, 2001a, 2001b; Kühnen et al., 2001; Kühnen & Oyserman, 2002; Lee et al., 2000; Lehman et al., 2004; Oyserman, 1993; Rhee et al., 1996; Singelis, 1994; Sinha & Tripathi, 1994; Triandis et al., 1988; Woike, 1994; Woike et al., 2001). Indeed, concern that contrasting societies to study "culture" is limiting by its nature is a popular stance within cultural psychology. Recently, empowered by the methods of experimental social psychology, an emerging literature suggests that cultural syndromes can be cued or brought to awareness just like other cognitive information.

Our goal was to synthesize the results of the individualistic and collectivistic cultural-syndrome priming literature with the cross-national literature, using as an organizing framework a situated multi-syndrome model that focuses on proximal antecedents of what might otherwise be assumed to be effects of distal cultural factors. As presented graphically in Figure 2.1, this model assumes that societies socialize for multiple cultural syndromes and that the cultural syndrome cued in the moment is the one that will influence affect, behavior and cognition. In this sense our multiple syndrome model focuses on cultural process as a form of situated cognition as what comes to mind, and how information is processed and interpreted depends on a patterned set of cues that frame meaning (e.g., is this about "me" or is this about "us") and set a process in motion (e.g., "separate" or "connect").

Our review of the literature shows moderate-sized effects of priming cultural syndromes. These effects are in the direction suggested by the cross-national, cross-cultural literature but occur in both the East and the West. The size of the effects parallel those found in the cross-cultural literature

(e.g., Oyserman, Coon, & Kemmelmeier, 2002) and are robust to variations in design characteristics, such as use of different cultural-syndrome priming tasks and whether studies report results of priming both individualistic and collectivistic cultural syndrome or report results for only one of these primes. These results focus our attention on the power of situated understandings (the sense made of the immediate situation) as a carrier of the active ingredients of “culture” broadly defined.

Far from being immutable, cultural differences are malleable in the moment. Because cultural-syndrome priming can be understood as setting up a situation that cues or makes subjectively salient isolated active ingredients of culture, the evidence that cultural-syndrome priming is effective suggests that in everyday life such malleability is also plausible. Subtle priming evokes subjective construals that afford and elicit culturally meaningful and relevant thoughts, feelings, and behaviors. Thus, while feeling natural, real and immutable, cultural meanings and cultural differences are likely fluid.

These findings suggest that culture acts as both a conceptual prime, activating relevant knowledge, and a procedural prime, activating relevant ways of thinking about the social and physical world. The cognitive tools (procedures) that come to mind when individualistic cultural syndrome is cued focus on pulling apart and separating, contrasting figure from ground and self from other. The cognitive tools that come to mind when a collectivistic cultural syndrome is cued focus on connecting and integrating, compromising, and assimilating figure with ground and self with other. Moreover, some initial work suggests that these procedures can be separately primed when specific elements of these broader cultural syndromes are primed. Thus, the studies by Stapel and Koomen (2001, Studies 1 and 5) using Dutch participants and by Lockwood, Dolderman, Sadler, and Gerchak (2004, Study 2) using Canadian participants suggest that priming individualism activates both separating and also elevating, at least in Dutch samples, and that the two procedures can be disentangled. This finding is important because many of the other priming tasks explicitly evoke the self. It is important to determine whether it is actually the self-concept and/or other procedural knowledge that is driving priming effects. For example, it would be helpful to test effects of the same priming tasks (e.g., scrambled sentence or subliminal prime) when the self is included or excluded from the priming materials. If effects, across East and West, are stronger when the self is included in the priming materials, this would lend stronger empirical support to the assumed mediation of cultural syndrome effects via impact on self-concept.

This caveat aside, results clearly support a version of the situated multi-syndrome model. Some questions remain unanswered. Though it seems that both individualism and collectivism can be primed in both the East and the West, it is not yet clear whether non-chronically salient syndromes require stronger primes than chronically salient ones. We also cannot yet say how long priming effects are likely to last or whether their effect remains when long-term and deep processing is required. Without doubt, conclusions are limited by the current available literature, but Oyserman and Lee’s (2008) recent meta-analytic findings strongly supports further research to understand how cultural syndromes influence the cognitive procedures that come to mind to solve tasks of daily life.

At minimum, current research seems applicable to different societies in the West (e.g., the U.S., Germany, the Netherlands) and the East (e.g., Hong Kong). Of course it would be helpful to add more diversity before making sweeping generalizations. Priming research does not yet include regions of the world such as Latin America, Africa, and the Middle East. These regions are important to include if the generalizability of the situated multi-syndrome model is to be better tested and if priming tasks are to be refined so that we do not make overgeneralizations about effects.

Moreover, as noted previously, the evidence for a mediating role of the self is indirect rather than direct. The mediating role of self-concept may itself depend on the nature of the individualistic and collectivistic cultural syndromes the field has examined to date. Perhaps our understanding of collectivism is limited by the fact that the field has focused on the West and societies in the East that do not have goings-on within societal ethnic or tribal strife. How might things differ if research focused on collectivism within African and Middle Eastern contexts in which a culture

of honor may combine with collectivism rather than the culture of modesty suggested for Eastern collectivism (e.g., Nisbett, 2003)?

It is possible that cuing a collectivistic cultural syndrome in these more heterogeneous societies cues inter-group conflict with the relevant cognitive procedure being to separate and contrast, rather than the closeness and assimilation to in-group demonstrated to be cued in the current set of studies. To tease apart these issues, it is necessary to understand better both (a) how collectivism works in other regions of the world and (b) which cultural syndromes may overlap with collectivism. Given this understanding, tasks could be devised to test effects of each syndrome, and a more general model of culture's proximal antecedents and consequences could be developed.

In addition to teasing out effects driven by how the self is perceived in the moment versus other effects of individualistic and collectivistic cultural syndromes, future research needs to consider tasks that tease apart effects of individualistic and collectivistic cultural syndromes from effects of other, likely correlated cultural syndromes. Shavitt and her colleagues (e.g., Shavitt, Lalwani, Zhang, & Torelli, 2006) are working on Triandis's conceptualization of cultural syndromes in terms of their construal of power differences: Is equality valued and are power differences unacceptable (horizontal cultural syndromes), or are power differences acceptable (vertical cultural syndromes)? They show that adding this specification clarifies cross-cultural differences. Priming tasks have not yet been used but have been proposed to separate this syndrome from individualism and collectivism (e.g., Oyserman, 2006).

More generally, increased specification of cultural syndrome priming tasks would allow for disentangling which cognitive processes are universally cued when a cultural syndrome (e.g., individualism) is cued and which ones are more variant, so likely rooted in particular modes or styles of being an individualist. By unpacking these effects, it will be possible to understand how the procedures cued by individualism and collectivism fit with overlapping but not identical procedures (e.g., "global" and "local" procedures, "prevention" and "promotion" procedures, "abstract" and "concrete" procedures). For example, Stapel and Sëmin (2007) demonstrate that priming the use of adjectives increases global reasoning, and priming the use of verbs increases local reasoning—effects that seem contrary to the currently reviewed priming literature if it is true that chronically collective cultures are higher in use of verbs and chronically individualistic cultures are higher in use of adjectives, as suggested by Maas and colleagues (2006).

The stakes are high. After all, humans do much of their thinking in a social context, and the exploration of socially situated cognition is currently a main thrust of social psychological research, with cultural influences on social judgment emerging as an important aspect of this field (Schwarz, 2000). Since, as notably argued by William James (1890), thinking is for doing, it seems reasonable to assume that social contexts provide a frame for suggesting what can or cannot be undertaken in the moment. Social contexts also cue which of the multiple information processing strategies available to each of us is likely to be used in a specific moment (Schwarz, 2000; Taylor, 1998). What we have suggested is that one of the ways in which meaning is organized in context is through the meaning cultural syndromes provide, and that once a particular cultural syndrome is cued, it is likely to carry with it relevant goals, motives, ways of interpreting information, and processing strategies.

REFERENCES

- Aaker, J. L., & Lee, A. Y. (2001). "I" seek pleasures and "we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28, 33–49.
- Abramson, P. R., & Imai-Marquez, J. (1982). The Japanese-American: A cross-cultural, cross-sectional study of sex guilt. *Journal of Research in Personality*, 16, 227–237.
- Al-Zahrani, S., & Kaplowitz, S. (1993). Attributional biases in individualistic and collectivistic cultures: A comparison of Americans with Saudis. *Social Psychology Quarterly*, 56, 223–233.
- Anderson, C. A. (1999). Attributional style, depression, and loneliness: A cross-cultural comparison of American and Chinese students. *Personality and Social Psychology Bulletin*, 25, 482–499.

- Arrindell, W. A., Hatzichristou, C., Wensink, J., Rosenberg, E., Van Twillert, B., Stedema, J., et al. (1997). Dimensions of national culture as predictors of cross-national differences in subjective wellbeing. *Personality and Individual Differences*, 23, 37–53.
- Aune, K. S., & Aune, R. K. (1996). Cultural differences in the self-reported experience and expression of emotions in relationships. *Journal of Cross-Cultural Psychology*, 27, 67–81.
- Bargh, J. A. (1990). Auto-motives: Preconscious determinants of social interaction. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition* (Vol. 2, pp. 93–130). New York: Guilford Press.
- Bargh, J. A., Bond, R. N., Lombardi, W. J., & Tota, M. E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology*, 50, 869–878.
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 253–285). New York, NY: Cambridge University Press.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Blondel, J., & Inoguchi, T. (2006). Political cultures in eighteen countries. In *Political cultures in Asia and Europe: Citizens, states and societal values* (pp. 1–19). London: Routledge.
- Bond, M. H., & Cheung, T.-S. (1983). College students' spontaneous self-concept: The effect of culture among respondents in Hong Kong, Japan, and the United States. *Journal of Cross-Cultural Psychology*, 14, 153–171.
- Bond, M. H., & Yang, K. S. (1982). Ethnic affirmation versus cross-cultural accommodation: The variable impact of questionnaire language on Chinese bilinguals from Hong Kong. *Journal of Cross-Cultural Psychology*, 13, 169–185.
- Bontempo, R. (1993). Translation fidelity of psychological scales: An item response theory analysis of an individualism-collectivism scale. *Journal of Cross-Cultural Psychology*, 24, 149–166.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475–482.
- Brewer, M. B., & Chen, Y. R. (2007). Where (who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Review*, 114, 133–151.
- Burris, C. T., & Rempel, J. K. (2004). "It's the end of the world as we know it": Threat and the spatial-symbolic self. *Journal of Personality and Social Psychology*, 86, 19–42.
- Chang, E. C., Asakawa, K., & Sanna, L. J. (2001). Cultural variations in optimistic and pessimistic bias: Do Easterners really expect the worst and Westerners really expect the best when predicting future life events? *Journal of Personality and Social Psychology*, 81, 476–491.
- Chang, L., Arkin, R. M., Leong, F. T., Chan, D. K. S., & Leung, K. (2004). Subjective overachievement in American and Chinese college students. *Journal of Cross-Cultural Psychology*, 35, 152–173.
- Chartrand, T. L., & Bargh, J. A. (1996). Automatic activation of impression formation: Nonconscious goal priming reproduces effects of explicit task instructions. *Journal of Personality and Social Psychology*, 71, 464–478.
- Chen, Y.-R., Brockner, J., & Katz, T. (1998). Toward an explanation of cultural differences in in-group favoritism: The role of individual versus collective primacy. *Journal of Personality and Social Psychology*, 75, 1490–1502.
- Chi, C. Y., Leung, A. K. Y., & Kwan, L. (2007). Language, cognition, and culture: The Whorfian hypothesis and beyond. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 668–688). New York: Guilford Press.
- Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological Bulletin*, 125, 47–63.
- Church, A. T., Katigbak, M. S., Del Prado, A. M., Ortiz, F. A., Mastor, K. A., Harumi, Y., et al. (2006). Implicit theories and self-perceptions of traitedness across cultures: Toward integration of cultural and trait psychology perspectives. *Journal of Cross-Cultural Psychology*, 37, 694–716.
- Cohen, D. (2001). Cultural variation: Considerations and implications. *Psychological Bulletin*, 127, 451–471.
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, 122, 5–37.
- de Montes, L., Semin, G., & Valencia, J. (2003). Communication patterns in interdependent relationships. *Journal of Language and Social Psychology*, 22, 259–281.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653–663.

- Duff, K. J. & Newman, L. S. (1997). Individual differences in the spontaneous construal of behavior: Idiocentrism and the automatization of the trait inference process. *Social Cognition*, 15, 217–241.
- Gardner, W. L., Gabriel, S., & Dean, K. K. (2004). The individual as “melting pot”: The flexibility of bicultural self-construals. *Cahiers de Psychologie Cognitive*, 22, 181–201.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). «I» value freedom, but «we» value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321–326.
- Gregg, G. (2005). *The Middle East: A cultural psychology*. New York: Oxford University Press.
- Haberstroh, S., Oyserman, D., Schwarz, N., Kühnen, U., & Ji, L. J. (2002). Is the interdependent self more sensitive to question context than the independent self? Self-construal and the observation of conversational norms. *Journal of Experimental Social Psychology*, 38, 323–329.
- Hannover, B., & Kühnen, U. (2004). Culture, context, and cognition: The Semantic Procedural Interface model of the self. *European Review of Social Psychology*, 15(9), 297–353.
- Heine, S. J., & Lehman, D. R. (1997). The cultural construction of self-enhancement: An examination of group-serving biases. *Journal of Personality and Social Psychology*, 72, 1268–1283.
- Higgins, E. T. (1989). Knowledge accessibility and activation: Subjectivity and suffering from unconscious sources. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 75–123). New York: Guilford Press.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.
- Higgins, E. T. (1998). The aboutness principle: A pervasive influence on human inference. *Social Cognition*, 16, 173–198.
- Higgins, E. T., & Bargh, J. A. (1987). Social cognition and social perception. *Annual Review of Psychology*, 38, 379–426.
- Higgins, E. T., Rholes, W. S., & Jones, C. R. (1977). Category accessibility and impression formation. *Journal of Experimental Social Psychology*, 13, 141–154.
- Hofstede, G. (1980). *Culture's consequences*. Thousand Oaks, CA: Sage.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton, NJ: Princeton University Press.
- Inglehart, R., & Oyserman, D. (2004). Individualism, autonomy, and self-expression: The human development syndrome. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparing cultures: Dimensions of culture in a comparative perspective* (pp. 74–96). Leiden, Netherlands: Brill.
- Jackson, T., Chen, H., Guo, C., & Gao, X. (2006). Stories we love by: Conceptions of love among couples from the People's Republic of China and the United States. *Journal of Cross-Cultural Psychology*, 37, 446–464.
- James, W. (1890). *The principles of psychology*. New York: Henry Holt and Co.
- Jensen, A. & Whang, P. (1994). Speed of accessing mathematical facts from long-term memory: A comparison of Chinese American and Anglo American children. *Contemporary Educational Psychology*, 19, 1–13.
- Kağıtçıbaşı, Ç. (1987). *Growth and progress in cross-cultural psychology*. Berwyn, PA: Swets.
- Kağıtçıbaşı, Ç. (1997). Whither multiculturalism? *Applied Psychology: An International Review*, 46, 44–49.
- Kashima, Y., Yamaguchi, S., Kim, U., Choi, S. C., Gelfand, M. J., & Yuki, M. (1995). Culture, gender, and self: A perspective from individualism-collectivism research. *Journal of Personality and Social Psychology*, 69, 925–937.
- Katz, D., & Kahn, R. (1966). *The social psychology of organizations*. New York: John Wiley & Sons, Inc.
- Kemmelmeier, M., & Oyserman, D. (2001a). Gendered influence of downward social comparisons on current and possible selves. *Journal of Social Issues*, 57, 129–148.
- Kemmelmeier, M., & Oyserman, D. (2001b). The ups and downs of thinking about a successful other: Self-construals and the consequences of social comparisons. *European Journal of Social Psychology*, 31, 311–320.
- Kim, H. S., & Sherman, D. K. (2007). “Express yourself”: Culture and the effect of self-expression on choice. *Journal of Personality and Social Psychology*, 92, 1–11.
- Kim, U., Triandis, H. C., Kağıtçıbaşı, Ç., Choi, S. C., & Yoon, G. (Eds.) (1994). *Individualism and collectivism: Theory, method, and applications*. Thousand Oaks, CA: Sage.
- Kitayama, S., Duffy, S., Kawamura, T., & Larsen, J. (2003). Perceiving an object and its context in different cultures. *Psychological Science*, 14, 201–206.

- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, 72, 1245–1267.
- Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology*, 91, 890–903.
- Krull, D. S., Loy, M. H.-M., Lin, J., Wang, C.-F., Chen, S., & Zhao, X. (1999). The fundamental attribution error: Correspondence bias in individualist and collectivist cultures. *Personality and Social Psychology Bulletin*, 25, 1208–1219.
- Kühnen, U., Hannover, B., & Schubert, B. (2001). The semantic-procedural interface model of the self: The role of self-knowledge for context-dependent versus context-independent modes of thinking. *Journal of Personality and Social Psychology*, 80, 397–409.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.
- Kwan, V. S. Y., Bond, M. H., & Singelis, T. M. (1998). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology*, 73, 1038–1051.
- LaFromboise, T., Coleman, H. L. K., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, 114, 395–412.
- Lee, A., Aaker, J., & Gardner, W. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78, 1122–1134.
- Lehman, D. R., Chiu, C. Y., & Schaller, M. (2004). Psychology and culture. *Annual Review of Psychology*, 55, 689–714.
- Leung, A. K. Y., & Cohen, D. (2007a). *Within- and between-culture variation: Individual differences and the cultural logics of honor, face, and dignity cultures*. Unpublished manuscript. Champaign: The University of Illinois.
- Leung, A. K. Y., & Cohen, D. (2007b). The soft embodiment of culture: Camera angles and motion through time and space. *Psychological Science*, 18, 824–830.
- Leung, T., & Kim, M. S. (1997). *A revised self-construal scale*. Honolulu: University of Hawaii.
- Liu, I. M. (1986). Chinese cognition. In M. H. Bond (Ed.), *The psychology of the Chinese people* (pp. 73–105). New York: Oxford University Press.
- Lockwood, P., Dolderman, D., Sadler, P., & Gerchak, E. (2004). Feeling better about doing worse: Social comparisons within romantic relationships. *Journal of Personality and Social Psychology*, 87, 80–95.
- Ma, H. K., & Cheung, C.-K. (1996). A cross-cultural study of moral stage structure in Hong Kong Chinese, English, and Americans. *Journal of Cross-Cultural Psychology*, 27, 700–713.
- Maass, A., Karasawa, M., Politi, F., & Suga, S. (2006). Do verbs and adjectives play different roles in different cultures? A cross-linguistic analysis of person representation. *Journal of Personality and Social Psychology*, 90, 734–750.
- Maddux, W. W., & Yuki, M. (2006). The “ripple effect”: Cultural differences in perceptions of the consequences of events. *Personality and Social Psychology Bulletin*, 32, 669–683.
- Marian, V., & Kaushanskaya, M. (2004). Self-construal and emotion in bicultural bilinguals. *Journal of Memory and Language*, 51, 190–201.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Markus, H. R., & Oyserman, D. (1989). Gender and thought: The role of the self-concept. In M. Crawford & M. Gentry (Eds.), *Gender and thought: Psychological perspectives* (pp. 100–127). New York: Springer-Verlag.
- Matsumoto, D. (1992). American-Japanese cultural differences in the recognition of universal facial expressions. *Journal of Cross-Cultural Psychology*, 23, 72–84.
- Morris, M. W., & Leung, K. (2000). Justice for all? Progress in research on cultural variation in the psychology of distributive and procedural justice. *Applied Psychology: An International Review*, 49, 100–132.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, 67, 949–971.
- Neely, J. H. (1977). Semantic priming and retrieval from lexical memory: Roles of inhibitionless spreading activation and limited-capacity attention. *Journal of Experimental Psychology: General*, 106, 226–254.
- Newman, L. S. (1993). How individualists interpret behavior: Idiocentrism and spontaneous trait inference. *Social Cognition*, 11, 243–269.
- Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently...and why*. New York: Free Press.

- Nisbett, R. E., & Cohen, D. (1996). *Culture of honor: The psychology of violence in the South*. Boulder, CO: Westview Press.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291–310.
- Norenzayan, A., Choi, I., & Peng, K. (2007). Perception and cognition. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology*, (pp. 569–594). New York: Guilford Press.
- Oyserman, D. (1993). The lens of personhood: Viewing the self and others in a multicultural society. *Journal of Personality and Social Psychology*, 65, 993–1009.
- Oyserman, D. (2006). High power, low power, and equality: Culture beyond individualism and collectivism. *Journal of Consumer Psychology*, 16, 352–356.
- Oyserman, D. (2007). Social identity and self-regulation. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 432–453). New York: Guilford Press.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128, 3–72.
- Oyserman, D., Kemmelmeier, M., & Coon, H. M. (2002). Cultural psychology, a new look: Reply to Bond (2002), Fiske (2002), Kitayama (2002), and Miller (2002). *Psychological Bulletin*, 128, 110–117.
- Oyserman, D., & Lee, S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin*, 134, 311–332.
- Oyserman, D., & Markus, H. (1998). Self as social representation. In U. Flick (Ed.) *The psychology of the social*. (pp. 107–125). New York, NY: Cambridge University Press.
- Oyserman, D., Sorensen, N., Reber, R., Sannum, P., & Chen, S. (2008). “I” pull-apart, “We” connect: Effect of priming aspects of individualism and collectivism on cognitive style. Unpublished manuscript. Ann Arbor: The University of Michigan.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, 54, 741–754.
- Rhee, E., Uleman, J. S., & Lee, H. K. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analyses. *Journal of Personality and Social Psychology*, 71, 1037–1054.
- Ross, M., Xun, W. Q. E., & Wilson, A. E. (2002). Language and the bicultural self. *Personality and Social Psychology Bulletin*, 28, 1040–1050.
- Rudman, L. A., & Borgida, E. (1995). The afterglow of construct accessibility: The behavioral consequences of priming men to view women as sexual objects. *Journal of Experimental Social Psychology*, 31, 493–517.
- Sayle, M. (1998). The social contradictions of Japanese capitalism. *Atlantic Monthly*, 281, 84–94.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York: Academic Press.
- Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, Ç. Kağıtçıbaşı, S.-C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 85–119). Thousand Oaks, CA: Sage.
- Schwarz, N. (2000). Social judgment and attitudes: Warmer, more social, and less conscious. *European Journal of Social Psychology*, 30, 149–176.
- Schwarz, N. (2002). Situated cognition and the wisdom of feelings: Cognitive tuning. In L. F. Barrett & P. Salovey (Eds.), *The wisdom in feelings: Psychological processes in emotional intelligence* (pp. 144–166). New York: Guilford Press.
- Schwarz, N. (2006). Attitude research: Between Ockham’s razor and the fundamental attribution error. *Journal of Consumer Psychology*, 33, 19–21.
- Schweder, R. (1995). Who sleeps by whom revisited: A method for extracting the moral goods implicit in practice. *New Directions in Child Development*, 67, 21–39.
- Scollon, C. N., Diener, E., Oishi, S., & Biswas-Diener, R. (2004). Emotions across cultures and methods. *Journal of Cross-Cultural Psychology*, 35, 304–326.
- Semin, G. R., Görts, C., Nandram, S., & Semin-Goossens, A. (2002). Cultural perspectives on the linguistic representation of emotion and emotion events. *Cognition and Emotion*, 16, 11–28.
- Shavitt, S., Lalwani, A. K., Zhang, J., & Torelli, C. J. (2006). The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology*, 16, 325–342.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580–591.

- Singelis, T. M., & Sharkey, W. F. (1995). Culture, self-construal, and embarrassability. *Journal of Cross-Cultural Psychology*, 26, 622–644.
- Sinha, D., & Tripathi, R. C. (1994). Individualism in a collectivist culture: A case of coexistence of opposites. In U. Kim, H. C. Triandis, Ç. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 123–136). Thousand Oaks, CA: Sage.
- Sorensen, N. & Oyserman, D. (2008). *The 'I' and 'We' in the GRE: Self-construal and academic performance*. Unpublished manuscript. Ann Arbor: The University of Michigan.
- Spencer-Rodgers, J., Peng, K., Wang, L., & Hou, Y. (2004). Dialectical self-esteem and East-West differences in psychological well-being. *Personality and Social Psychology Bulletin*, 30, 1416–1432.
- Srull, T. K., & Wyer, R. S. (1978). Category accessibility and social perception. *Journal of Personality and Social Psychology*, 37, 841–856.
- Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, 37, 1660–1672.
- Stapel, D. A., & Koomen, W. (2001). I, we, and the effects of others on me: How self-construal level moderates social comparison effects. *Journal of Personality and Social Psychology*, 80, 766–781.
- Stapel, D. A., & Semin, G. (2007). The magic spell of language: Linguistic categories and their perceptual consequences. *Journal of Personality and Social Psychology*, 93, 23–33.
- Taylor, S. E. (1998). The social being in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 1, pp. 58–95). New York: McGraw-Hill.
- Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology*, 60, 649–655.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Triandis, H. C. (1993). Collectivism and individualism as cultural syndromes. *Cross-Cultural Research*, 24, 155–180.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, 51, 407–415.
- Triandis, H. C. (2007). Culture and psychology: A history of the study of their relationship. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology*, (pp. 59–76). New York: Guilford Press.
- Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, B. (1988). Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology*, 54, 323–338.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Triandis, H. C., & Trafimow, D. (2001). Cross-national prevalence of collectivism. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self* (pp. 259–276). Philadelphia: Taylor & Francis.
- Tsai, J. L., & Levenson, R. W. (1997). Cultural influences of emotional responding: Chinese-American and European-American dating couples during interpersonal conflict. *Journal of Cross-Cultural Psychology*, 28, 600–625.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge, UK: Cambridge University Press.
- Wang, Q., & Ross, M. (2007). Culture and memory. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 645–667). New York: Guilford Press.
- Ward, C., Bochner, S., & Furnham, A. (Eds.) (2001). *The psychology of culture shock* (2nd ed.). New York: Routledge.
- Waterman, A. (1981). Individualism and interdependence. *American Psychologist*, 36, 762–773.
- Woike, B. A. (1994). The use of differentiation and integration processes: Empirical studies of “separate” and “connected” ways of thinking. *Journal of Personality and Social Psychology*, 67, 142–150.
- Woike, B. A., Lavezzary, E., & Barksy, J. (2001). The influence of implicit motives on memory processes. *Journal of Personality and Social Psychology*, 81, 935–945.
- Yang, K. S., & Bond, M. H. (1980). Ethnic affirmation by Chinese bilinguals. *Journal of Cross-Cultural Psychology*, 11, 411–425.

3 Culture Comparison and Culture Priming

A Critical Analysis

Yoshihisa Kashima

One of the most obvious issues in cultural psychology today appears to be methodology. On the one hand, there is a wealth of *cross-cultural research* that compares cultures—mostly North America and East Asia—in beliefs, attitudes, and values as well as associated social behavior (e.g., Leung & Bond, 2004; Leung, Bond, de Carrasquel, Munoz, Hernández, Murakami, et al., 2002; Schwartz, 1992, 1994; Triandis, 1995). This research shows systematic cultural differences (for reviews, see Oyserman, Coon, & Klemelmeier, 2002; Triandis, 1995, 1996). These studies administer some tasks (e.g., attitude measures, experimental scenarios) to observe psychological processes in samples taken from distinct cultural groups, and characterize observed group differences in psychological processes in terms of global culture concepts such as individualism and collectivism (Hofstede, 1980; Triandis, 1989, 1996), independent and interdependent self-construal (Markus & Kitayama, 1991), and analytic and holistic cognitive styles (Nisbett, Peng, Choi, & Norenzayan, 2001). On the other hand, there is a robust set of *culture priming research* that experimentally activates or “primes” (Higgins, 1996) what are believed to be the global culture concepts that embody the cultural differences and observes the effects of their temporary activation (e.g., Hong, Morris, Chiu, & Benet-Martínez, 2000; Kühnen & Oyserman, 2002; Trafimow, Triandis, & Goto, 1991). This latter methodology usually takes a sample from a single cultural group, though sometimes two groups are involved (e.g., Trafimow et al., 1991); and by making salient some aspects of cultures, these studies produced effects that are similar to those observed in cross-cultural studies (see Oyserman & Lee, 2008a, 2008b).

These methodological approaches are often taken to present a coherent set of findings that are unproblematically interpretable within the existing culture theories in psychology. However, their apparent coherence hides deep conceptual issues. Hong and Chiu (2001) characterized the movement from cultural comparisons to culture priming as a paradigm shift. As they noted, culture priming effects urge us to seek social cognitive mediating processes that produce the cultural differences. This chapter attempts to consider these mediating processes further. In so doing, I will argue that the methodological difference in fact touches on two of the central metatheoretical issues in social science. In my view, the contemporary methodological approaches to culture raise these metatheoretical issues in a methodological disguise, and an unreflective stance can present some knotty questions for cultural psychology.

What are these metatheoretical issues? One is concerned with a tension between two perspectives on culture in psychology. One perspective regards culture as a coherent system of meaning that is shared among a group of people over a period of time (e.g., Geertz, 1973; Triandis, 1972). The other views culture as a process of meaning making and remaking by concrete actors in concrete situations (e.g., Cole, 1996). The system view regards culture as consensual, enduring, and context-general, whereas the process view takes culture to be more fragmented, fluctuating, and context-specific. The culture priming method, as Hong and Chiu (2001) also noted, moves cultural psychology closer to the process view.

The other issue is less obvious. It is concerned with the nature of social scientific theories (see Kashima, 2000a, for a brief outline of the issue). One school of thought, the so-called natural science model of social science, regards causal explanation as the sole purpose of science. In this view, scientists use experiments to find out the causal structure of the universe; so too do psychologists, because the mind and behavior are also part of the universe. It should make no difference whether we are dealing with the behavior of humans or the behavior of atomic molecules. In contrast, the other school of thought, cultural-historical models of social science, takes the development of an insightful interpretation of complex phenomena as its purpose (e.g., Geertz, 1973). This is a metatheoretical issue that cuts through the contemporary epistemological controversy about the nature of social science and psychology (Kashima & Haslam, 2007–2008), with some researchers expressing a view that the adoption of a cultural-historical model of social science in psychology amounts to abandoning a scientific stance in psychology. However, I do not subscribe to this view. What I present in this chapter is an understanding of cultural psychology that is both natural-scientific and cultural-historical, both causal-explanatory and interpretive.

This chapter consists of two parts. In the first part, I attempt to bring out theoretical difficulties presented by the two sets of empirical findings—systematic cross-cultural differences and analogous priming effects—as clearly as possible. To do this, I will use a conceptual device that I call the *standard model* (or reading) of cultural psychological theories. To avoid a potential misunderstanding, let me state clearly that I *do not* mean to claim that any particular theorist adopts the standard model. However, I *do* mean to claim that cultural psychologists often slip into this understanding of the cultural psychological theories, and that this conceptual slippage can lead us into a theoretical conundrum. This conundrum is summarized as the problems of cultural coherence and cultural causation, which I will explicate later. As an alternative, I will present a *semiotic model*, which I believe will help us resolve the dual problems of cultural coherence and cultural causation. This alternative model is embedded in a metatheory that I call neo-diffusionism. The second part of the chapter sketches out a particular variant of this metatheory and discusses its implications for some of the contemporary issues in cultural psychology. In particular, I wish to suggest that this metatheory is compatible with the *cultural dynamical* view (Kashima, 2000a)—that culture endures as well as changes, that culture is both context-general and situated, and that individuals' particular meaning-making activities in specific situations collectively *causally* generate patterns of meaning that can be *interpreted* to be a globally enduring system.

THE STANDARD MODEL AND THE SEMIOTIC MODEL OF CULTURAL PSYCHOLOGICAL THEORIES

The standard reading of the existing theories of cultural differences (i.e., individualism and collectivism, independent and interdependent self-construal, and analytical and holistic thought systems) is the following.

1. There are individual differences in domain-general psychological processes or representations (e.g., individualist- and collectivist-orientations, independent and interdependent self-construals, analytical and holistic cognitive styles) that capture differences between Eastern and Western cultures. Let us call them *domain-general psychological constructs*. All such constructs might exist in any given person, but their amounts (which may be described as strengths, salience, or accessibility, depending on one's theory) differ. Thus, persons who grow up in an Eastern culture have more of the Eastern way, but less of the Western way, than those who grow up in a Western culture.
2. These domain-general psychological constructs manifest themselves in numerous psychological domains. Let us call them *domain-specific psychological constructs*. Again, both Eastern and Western kinds of domain-specific psychological constructs that differentiate

Eastern and Western cultures exist in any given person, but their amounts (again may be read as strength, salience, accessibility, etc.) differ, so that those who grow up in an Eastern culture have more of Eastern domain-specific constructs, and less of Western domain-specific constructs, than those who grow up in a Western culture. Therefore, a measurement procedure for these domain-specific constructs should show a cultural difference between individuals sampled from Eastern and Western cultures.

3. The domain-general and domain-specific psychological constructs are assumed to be *causally linked*. So, the activation of a domain-general construct causes the activation of a linked domain-specific construct, and vice versa. This implies that there should be a *priming effect*. That is, when a domain-specific construct is activated, the activation of a different, causally linked domain-specific construct should be observable. In this standard reading of the culture theories, priming effects should be mediated by the activation of relevant domain-general constructs. That is, the activation of a domain-specific construct should result in the activation of a causally linked domain-general construct, which further results in the activation of another domain-specific construct linked to the domain-general construct.

This model can be schematically represented in Figure 3.1 (upper panel). It is akin to the standard factor analytic model, where domain-specific constructs are regarded as indicators of a domain-general construct. Strictly speaking, this is an analogy and not a technically correct understanding. For most purposes, however, it is a useful heuristic.

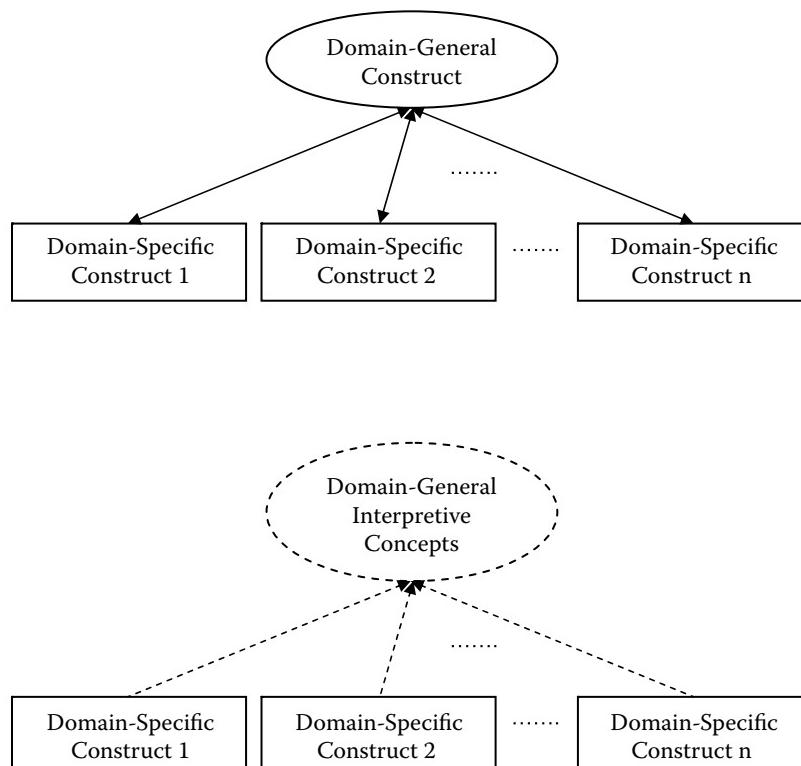


FIGURE 3.1 Schematic representation of the standard reading (upper panel) and a semiotic reading (lower panel) of the psychological theories of cultural differences. Note: Solid lines indicate *causal links*, with their bidirectional arrows indicating their bidirectional causal relationships. Broken lines indicate *interpretive links*, with their arrowheads indicating an interpretation.

In contrast, a semiotic reading of the theories of cultural differences, which regards the concepts such as individualism and collectivism as *interpretive concepts* rather than psychological constructs that are causally involved in the psychological processes, is as follows.

1. Global culture concepts used to characterize cultural differences (e.g., individualist- and collectivist-orientations, independent and interdependent self-construals, analytic and holistic cognitive styles) are *domain-general interpretive concepts*. They are not usually causally involved in psychological processes. (Some specific circumstances in which they may be causally involved will be discussed later.) Rather, they should be regarded as domain-general characterizations that are used to *interpret* cultural differences.
2. These domain-general constructs are used to *interpret* specific cultural differences in psychological processes. The constructs manifest themselves in numerous more specific psychological domains. Let us call them *domain-specific psychological constructs* in a given domain. Again, both Eastern and Western kinds of domain-specific psychological constructs exist in any given person, but their amounts (again may be read as strength, salience, accessibility, etc.) differ, so that those who grow up in an Eastern culture have more of Eastern domain-specific constructs, and less of Western domain-specific constructs, than those who grow up in a Western culture. Therefore, a measurement procedure for these domain-specific constructs should show a cultural difference between individuals sampled from Eastern and Western cultures. Note that the semiotic characterization of these domain-specific constructs is similar to the standard characterization.
3. The domain-general interpretive concepts are used to interpret domain-specific psychological constructs but are not necessarily causally linked to them. This implies that a priming effect (i.e., the activation of a domain-specific construct resulting in the activation of another domain-specific construct) does not have to occur, and if it does occur, it is not mediated by the activation of domain-general psychological constructs. I will explain later how and under what circumstances priming effects may occur.

The semiotic model is also illustrated in Figure 3.1 (lower panel).

Kashima and Haslam (2007–2008) constructed an example that illustrates the differences between the standard and semiotic readings of culture theories in psychology. Consider the following situation, taken from Menon, Morris, Chiu, and Hong's (1999) research:

In a company, a group of coworkers was responsible for completing a very important project. The project itself involved few complications, but one problem constantly plagued the group. One coworker, whom we will call "Z," consistently showed up late for meetings and, worse, missed deadlines. Z had reasonable excuses for every incident. For example, in one case Z was tied up with an emergency personal situation, and in another Z came down with a bad flu. In the final analysis, Z's work did not get done to the group's satisfaction, and the group was often charged with the responsibilities that should have been Z's. Group relations suffered, and the members of the group often lost their patience with Z and became sidetracked from the project. As a result of these issues, the final product did not meet expectations of quality (p.708).

Mr. West and Mr. East made the following comments to their respective conversational partners:

Mr. West: Z was in charge of his own actions and behaviors.

Mr. East: The group was unsupportive, unable to handle internal problems.

According to Menon et al. (1999), 41 Stanford undergraduates on the average agreed with Mr. West more, and Mr. East less, than their 52 counterparts at the University of Hong Kong. This finding

can be reasonably paraphrased as follows: Americans are more likely to *blame the individual*, but Chinese are more likely to *blame the group*. There is no dispute that the act of blaming the individual is an *individualistic act*, and the act of blaming the group is a *collectivistic act*. The theoretical question is how to deal with the difference between the two samples in distribution of *these specific* individualistic and collectivistic acts.

Both the standard and semiotic models would postulate that there exist domain-specific psychological constructs of *individual blaming* and *group blaming*. Both models would endorse the following description of the finding: In encountering an event like the situation described above, people who have grown up in East Asian cultures are likely to activate the group-blaming construct more, and the individual-blaming construct less, than those who have grown up in Western cultures. What distinguishes the semiotic model from the standard model is whether it postulates a domain-general psychological construct. The standard model postulates domain-general psychological constructs such as individualism and collectivism or independent and interdependent self-construals, and *explains* the cultural differences in terms of their activation. In contrast, the semiotic model does not postulate domain-general psychological constructs, but it *interprets* the acts of individual blaming and group blaming in terms of the interpretive concepts of individualism and collectivism, and it describes the cultural differences in terms of the distributions of individualistic and collectivistic acts in this particular situation.

Put somewhat more schematically, both the standard model and the semiotic model imply that there should be macro-level cultural differences, and micro-level domain-specific psychological constructs are causally implicated in them. However, the standard model postulates domain-general psychological constructs that causally explain the cultural differences in the domain-specific psychological constructs, whereas the semiotic model regards domain-general concepts as *not causal explanatory* but *interpretive* concepts that can be used to summarize and describe them.

One way to think of the contrast between these two models may be to draw an analogy to models of memory storage in social cognition. One class of memory models regards memory storage as a network of mental representations, in which all concepts are connected with each other (e.g., Wyer & Carlston, 1979). In contrast, the bin model of memory storage (e.g., Wyer & Srull, 1989) postulates semi-autonomous content-addressable storage “bins” for different referents. These bins are not necessarily psychologically connected to each other, as in a network model of memory storage. The network memory model is to the bin model as the standard model of culture theories is to the semiotic model. In contrast to the network model and the standard model, the bin model and the semiotic model present a more compartmentalized picture of the human mind.

The next sections of this chapter consider the standard and semiotic models more generally. To foreshadow my argument somewhat, when it comes to the individualistic and collectivistic acts of individual and group blaming, empirical evidence seems more in line with the semiotic model than the standard model. Chao, Zhang, and Chiu’s (in press) recent research suggests that the activation of individual and group blaming constructs is likely to be dependent on the situational salience of different goals that can be served by blaming individuals or groups. For instance, when the importance of group harmony was salient, both Americans and Chinese blamed a group more than when it was not salient.

TWO PROBLEMS OF THE STANDARD MODEL

The standard model has two problems (Kashima & Haslam, 2007–2008). One is the problem of *cultural coherence*. The standard model predicts that when cultural groups are shown to differ in strengths of domain-specific constructs that are linked to domain-general constructs, these domain-specific constructs should cohere together (e.g., correlate with each other). This is because they should be causally linked to each other through a domain-general construct so that the tendency to activate one should be related to the tendency to activate another.

Note that there are two parts to the claim of cultural coherence. One is the systematic cultural difference—cultural groups show systematic differences in the domain-specific psychological constructs. The other is the relatedness between those domain-specific psychological constructs, which should be correlated within each cultural group. Empirical research has substantiated the first part but has not borne out the second part of the standard model's cultural coherence prediction. To put it differently, when individual difference measures of domain-specific constructs are administered to cultural groups, and even when these measures show expected cultural differences, these measures tend *not* to correlate with each other within each cultural group. In fact, the problem of cultural coherence is precisely what Triandis (1996) tried to resolve by calling individualism and collectivism *cultural syndromes*.

Triandis, Chan, Bhawuk, Iwao, and Sinha (1995) provided one of the earliest examples of this problem. They administered a battery of measures designed to tap individualism or collectivism. Most measures used similar methods (e.g., Likert-type response scale to attitudinal items), but others used different methods such as people's open-ended descriptions of themselves. When similar methods were used, measures of individualism and collectivism are correlated to some extent. This is presumably because similar methods tend to share similar measurement biases (Campbell & Fiske, 1959, called this a method variance). However, when different types of measures are used, correlations tended to be small, presumably because different types of measurement procedures do not share the same measurement biases. This implies that the individualism-collectivism measures using different measurement methods may not tap the same underlying domain-general construct.

Another example comes from Rhee, Uleman, and Lee (1996). They obtained a large number of individualism-collectivism measures, which were tailored for different in-groups, kinship-based group (kin), non-kinship group such as friends and neighbors (non-kin), and general others. These measures were administered to Koreans, Asian Americans, and European Americans. For each in-group, people's tendencies to exhibit individualist or collectivist orientations were observed, and different latent factor models were fit to the data.

The results were complex; however, one thing stood out clearly. Individualism and collectivism measured for different in-groups formed separate underlying dimensions in a confirmatory factor analysis. More specifically, models that postulate domain-general individualism-collectivism that disregard the specific domains of interpersonal relationships showed a poorer fit than domain-specific models that differentiated individualism and collectivism for different in-group contexts. This presents a problem for the standard model, which postulates domain-general constructs. This result is easily explainable in terms of the semiotic model. Presumably, people engage in different social activities with members of different in-groups, in family activities with their kin, but in other patterns of socializing with non-kin friends. Therefore, each of these in-group specific individualism or collectivism measures represents a domain-specific psychological construct; however, they do not have to cohere as an over-arching domain-general individualism-collectivism.

Finally, Choi, Koo, and Choi (2007) present an example of the cultural coherence problem for holistic and analytic cognitive styles. They constructed a holism scale, which consists of four subscales whose items verbally describe previous experimental findings of cultural differences: causality (everything in the universe is related to everything else; e.g., Choi, Dalal, Kim-Prieto, & Park, 2003), locus of attention (it is more important to pay attention to the whole than to its parts; e.g., Masuda & Nisbett, 2001), attitudes toward contradiction (it is more desirable to take the middle ground than to go to extremes; Peng & Nisbett, 1999), and perception of change (current situations can change at any time; Ji, Nisbett, & Su, 2001). Each subscale taps a different domain-specific psychological construct. Participants responded to these items using a Likert-type response scale. The exploratory and confirmatory factor analyses showed that these four subscales formed four separate dimensions. Study 1 showed that although the causality subscale correlated with the other three subscales between 0.51 and 0.71, the correlations among the latter three subscales were rather low, varying from 0.07 to 0.25. Choi et al. (Study 3) also reported cultural differences between Korean and American samples on each of the subscales. In other words, using the same measurement

method, the individual difference variables that showed reliable cultural differences did not cohere, again presenting a problem for the standard model but in line with the semiotic model.

Oyserman and Lee (2008a) made a similar observation about the lack of coherence among measures of individualism and collectivism. Oyserman et al. (2002), in their meta-analysis of the individualism and collectivism literature, identified seven domains of individualism (independence, personal goal, competition, uniqueness, privacy, self-knowledge, direct communication) and eight domains of collectivism (relationality, belonging to group, duty, harmony, advice, contextual fluctuation, hierarchy, group activity). Depending on which domain is included in the meta-analysis, the direction and size of cultural differences between the U.S. and some East Asian countries (especially Japan) varied dramatically. For instance, Japanese turned out to be more individualistic than Americans when competition and uniqueness were included; Americans turned out to be more collectivistic than Japanese when relationism, group belonging or hierarchy was included. To be sure, methodological concerns overshadow some of these conclusions (e.g., Heine, Lehman, Peng, & Greenholtz, 2002; Schimmack, Oishi, & Diener, 2005). Yet, they present salutary observations of the current state of cultural comparative research.

The second problem of the standard model is a variant of the first, that is, the *cultural causation* problem. The standard model predicts that domain-general psychological constructs should causally explain cultural differences in domain-specific psychological constructs. In other words, when cultural groups differ in domain-general psychological constructs such as independent and interdependent self-construal, as well as in domain-specific psychological constructs such as tendencies to perform specific behaviors, cultural differences in the domain-specific constructs should be mediated by the domain-general constructs. Statistically speaking, the cultural differences in domain-specific constructs should become nonsignificant when the effects of domain-general constructs are statistically controlled for. This is a straightforward implication, as Matsumoto (1999) argued, if the existing culture theories such as independent and interdependent self-construal are interpreted in the standard way. However, his review showed that this implication was not borne out by the existing data. The problem of cultural causation is often dismissed by citing potential problems of measuring self-construal, individualism and collectivism, and the like. An alternative interpretation of this issue, however, is simply that the standard model is wrong.

Both the cultural coherence and cultural causation problems derive from the postulate that domain-general constructs are *causally implicated* in domain-specific psychological processes. If domain-general concepts such as individualism and collectivism, independent and interdependent self-construal, and analytic and holistic cognitive styles are regarded as *interpretive concepts* that are *not causally involved* in the cultural differences but are used to describe and interpret them (Kashima & Haslam, 2007–2008), these problems do not arise.

Let me restate my argument here as clearly as possible. I am *not* arguing that we should dismiss domain-general concepts such as individualism and collectivism, independent and interdependent self-construal, or analytic and holistic cognitive style. In fact, I *am* arguing that we should retain them. In this regard, my argument differs from Poortinga's (2003) call for the dismissal of these domain-general concepts. However, I *am* arguing that we should treat them as *interpretive* concepts, but *not* as explanatory concepts. True, this may raise a metatheoretical ire of some researchers. As I noted earlier, in a certain perspective on social science, to characterize domain-general concepts as interpretive but not causal explanatory amounts to saying that these concepts are not satisfactory as scientific theories. This charge stems from the natural science model of social science (see Kashima, 2000a, for a brief exposition; also see Kashima & Haslam, 2007–2008), which takes the central objective of scientific theories to be the provision of a causal explanation.

My defense is that some social scientific theories can be interpretive, and domain-general interpretive concepts can serve useful scientific purposes by virtue of their being able to provide an interpretive framework in which to characterize global cultural differences. After all, if we do not accept the scientific status of these global concepts, we cannot even call individual-blaming or group-blaming actions individualistic or collectivistic. Acknowledging the importance and utility

of interpretive concepts for social science and psychology is an important step forward to shake cultural psychology free of the old metatheoretical quandary about natural scientific versus cultural-historical scientific models of psychology.

At any rate, the fact that the semiotic model does not have the theoretical difficulties of cultural coherence and causation is not a sufficient reason for adopting it. What are the positive reasons why it should be adopted?

TWO REASONS FOR A SEMIOTIC MODEL

There are empirical and metatheoretical reasons why a semiotic reading of culture theories should be taken seriously in cultural psychology. To begin, empirical findings show robust priming effects, which suggest that situationally induced temporary activations of individualism or collectivism can produce psychological effects that are akin to cross-cultural differences in individualism and collectivism. The typical procedure of culture priming research involves two steps.

The first step is the initial priming of some aspects of individualism or collectivism (or other culture concepts) by having participants engage in tasks that encourage them to use (or activate) some domain-specific psychological constructs. One such method, used by Trafimow et al. (1991), might be to have participants read through a brief story that emphasizes either protagonists' individual abilities and characters (thus priming individualism) or their relationships, obligations, and duties (priming collectivism). Another method might be to have participants read a story that uses different types of pronouns and have them circle those pronouns ("I" for individualism and "we" for collectivism; see Brewer & Gardner, 1996).

The second step observes priming effects by having the participants perform another task that requires them to engage a different, though often closely related, domain-specific psychological construct. Examples of this include content analysis of open-ended self-descriptions (Trafimow et al., 1991) and values (Gardner, Gabriel, & Lee, 1999). Oyserman and Lee (2008a, 2008b) reported a meta-analysis of 67 such studies that primed individualism, collectivism, or both using a variety of methods, and that examined their effects on measures of values, self-concept, and cognition. They found a mean effect size of .43.

As Oyserman and Lee (2008a, 2008b) noted, the culture-priming studies imply that the activation of the psychological constructs in culture theories are *situation-dependent*. However, what is the psychological construct that is situationally activated? One interpretation is based on the standard model, that is, relevant domain-general psychological constructs are turned on or off by the immediate situational cues. Something like Triandis's (1996) psychological syndromes can be viewed as domain-general psychological representations that are present in every person. Situations that prompt people to use collective pronouns such as "we," as opposed to "I," would then turn on the domain-general collectivism construct rather than the domain-general individualism construct, and the activated construct would then encourage people to perform collectivistic actions, namely, endorsing collectivistic rather than individualistic values. This interpretation emphasizes the situated nature of cultural processes. However, it does not go far enough. That is, it must still contend with the cultural coherence and causation problems.

An alternative account is based on the semiotic model. In this account, individualism and collectivism are not domain-general constructs that are causally involved in psychological processes. Rather, they are interpretive concepts that observers can use to conceptualize cultural differences in psychological processes. Under this model, the culturally different psychological processes are driven by domain-specific psychological constructs, but they are *not* indirectly linked to each other through their mediating association with domain-general constructs. Rather, they may be, though not always, *directly* linked to each other. This is because some domain-specific constructs may be simultaneously implicated in some specific situations that involve specific domains of activities, and therefore, they become psychologically associated with each other. Then, the activation of one such construct can activate another; this results in a culture-priming effect.

These two models make different predictions about culture priming. The standard model suggests that there should always be priming effects, whereas the semiotic model predicts that the presence or absence of priming effects depends on whether or not there is a psychological association between the domain-specific construct involved in the priming procedure and the domain-specific construct involved in the subsequent observation (i.e., the dependent variable). To the best of my knowledge, a competitive test between these two models has not been conducted. In fact, an empirical test between them may be somewhat difficult, as the absence of a priming effect can always be attributed to a methodological failure. I will return to this point later, however.

An additional reason to favor the semiotic model is metatheoretical. The semiotic model is quite compatible with a metatheoretical approach, which claims that psychological processes or constructs that involve cultural information are acquired and shaped through concrete activities in which people engage. This implies that the domain-specific psychological constructs are likely to be activated by cues that are often present as part of those concrete activities through which they acquire those domain-specific psychological constructs. Therefore, to the extent that those activities occur in specific social situations, the activation of the domain-specific constructs is situation-dependent.

The reasoning behind this metatheoretical claim is the following: Domain-specific psychological constructs form and develop as the psychological counterparts to concrete activities that people perform while using the relevant cultural information. These activities, in turn, are strongly embedded in various social activities that the individuals routinely perform in particular social situations in daily life (e.g., around the dining table at home, in the classroom at school, in the office at work). That is, the kind of activities that people engage in when they are sitting around the dining table at home may be fairly consistent over time. What the same people do at work may likewise be fairly consistent over time. However, what they do at home may differ systematically from what they do at work. Therefore, two different domain-specific psychological constructs, which are counterparts to the different kinds of activities that they engage in at home and at work, may form and develop. Consequently, one domain-specific psychological construct may be activated by cues available at home, but a different domain-specific construct may be activated by cues available at work.

This line of reasoning suggests that people may exhibit consistent behavioral patterns *within* each situation but not *across* situations. Indeed, this is analogous to the pattern that Mischel and Shoda (1995; Mischel, Shoda, & Mendoza-Denton, 2002) described in their work on personality. Nonetheless, what is intriguingly unique about culture and psychology is the following: Just as Mischel and Shoda found, people *do not* show cross-situational consistencies in their psychological processes—domain-specific psychological constructs do not cohere within each culture. However, those domain-specific psychological constructs *do* show consistent cultural differences. To put it differently, within each culture, persons are not cross-situational consistently individualistic or collectivistic, but when compared between cultures, *cultural groups* are often cross-situational consistently individualistic or collectivistic (cf. Oyserman et al., 2002).

I will explicate this argument more fully in the next section.

NEO-DIFFUSIONISM, GROUNDING, AND DISTRIBUTED COGNITION

The above metatheoretical reasoning derives from what I called elsewhere a *neo-diffusionist* approach to cultural evolution (Kashima, Peters, & Whelan, 2008). According to this view, culture can be understood as a non-genetically transmitted body of information. Cultural information then diffuses from one person to another through social interaction. This basic idea was called diffusionism (because cultural diffusion is central to this thinking) and became popular among anthropologists in the United Kingdom and Germany at the beginning of the 20th century. However, it soon went out of favor and did not re-emerge until the 1970s (e.g., Boyd & Richerson, 1985; Campbell, 1975; Cavalli-Sforza & Feldman, 1981; Dawkins, 1976; Sperber, 1996).

The earlier version of diffusionism was marred both by a lack of theorizing about the mechanism of cultural transmission and by empirically unsubstantiated claims about cultural diffusion. The

contemporary version places more emphasis on the mechanism of cultural information transmission and its implications for the diffusion of cultural information in a population. To mark the distinct character of the latter-day diffusionist theories, this school of thought is called *neo-diffusionism*.

There are a number of specific models and theories that adopt the neo-diffusionist approach. Among them is Dawkins's (1976) meme theory, Cavalli-Sforza and Feldman's (1981) application of population genetic models to cultural evolution, Boyd and Richerson's (1985) double inheritance model, Sperber's (1996) epidemiological model, as well as Chiu, Hong, and their colleagues' (Chiu & Hong, 2006; Hong et al., 2000) dynamic constructivism. There are others as well (see Kashima, Peters, & Whelan, 2008); however, in this chapter, I will describe a particular variant of this approach that combines a model of cultural transmission processes called the *grounding model* (Kashima, Klein, & Clark, 2007) with a distributed processing model of social concept learning called the *tensor product model* (Kashima, Woolcock, & Kashima, 2000).

According to this view, cultural information is transmitted within concrete episodes of social interaction of the sort that typically occur when two or more real or imagined interactants engage in a joint activity. A joint activity is a fuzzy category of events generated by interactants, who are defined by their shared goal and who have a beginning and an end. A given type of joint activity typically happens within a certain type of context with certain types of people carrying out given roles. Examples of joint activities include such mundane activities as having a dinner table conversation, a committee meeting, a lunch break at work, and others. Cultural information is presented by one interactant to another interactant and acquired by the latter as part of their joint activity, often through the use of symbols or signs (such as words and other tools). The presentation and acquisition of the cultural information is collaborative, socially coordinated, and incomplete; that is, it occurs to the extent it is necessary for the joint activity. This process of sharing cultural information through collaborative activities is called *grounding* (Clark, 1996).

To illustrate how grounding works, imagine the following interaction episode (Kashima, Klein, & Clark, 2007): You are accompanied by your friend, who is visiting his boss for a conversation. In other words, you two and the boss have some general understanding about the purpose of the meeting, and this sets up shared expectations about the subsequent social interaction. When you enter the room, the boss says to you both, "Sit down," with a wave of his hand. This utterance and the hand waving constitute a presentation, the first part of grounding. To this, your friend may reply, "Yes, sir," "Thank you," or "That's a good idea," and take a seat, while nonverbally urging you to take the other chair. Each reply is an acceptance of the presentation, which gives evidence that your friend has understood what the boss meant, and there is a mutual understanding about the boss's intent. The exchange of presentation and acceptance in communication then establishes a mutual understanding—this is called *grounding*—and adds the mutual understanding to their extant set of mutual understanding, *common ground*. In short, grounding processes are coordinated social activities among interactants to establish a new mutual understanding and add it to the existing mutual understandings to expand them.

What information in these sorts of episodes in joint activities can be potentially grounded in the interactants' common ground? Kashima, Klein, and Clark (2007) argued that at least two kinds of information are grounded. The first kind is about *what* information is shared, or the information about the *content* of the mutual understanding. It includes the information about the main point of this interaction, a mutual understanding about everyone sitting down in a chair. However, this is not all that is grounded in the common ground. It also grounds other peripheral information, such as the information about the relationship between the interactants. Note in this example the episode transmits cultural information about power distance—the social status difference between the interactants, which is one of the most significant cultural differences that Hofstede (1980) identified. Depending on the reply, different levels of power distance are implied. "Yes, sir" implies that the boss's utterance was understood as an order; "Thank you," an offer; and "That's a good idea," an advisory. If the boss does not say anything, then this establishes the mutual understanding of the boss's utterance as an order, an offer, or an advisory. Depending on how the boss's utterance

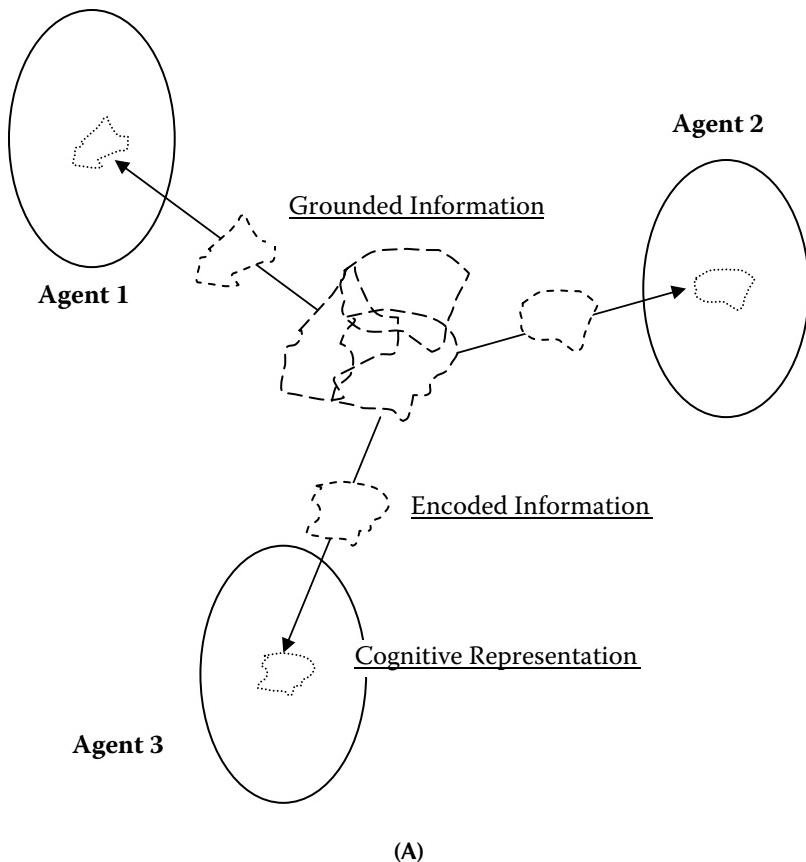
is mutually understood, a greater or lesser degree of power distance is implied: an order implies a greater distance, whereas an offer or an advisory implies a lesser distance.

The second type of information grounded in this episode is concerned with *who* shares the information, or *for whom* the grounded information constitutes common ground. Obviously, those who are directly involved in this interaction—you, your friend, and the boss, for instance—would be included in this collection. However, depending on the interactants' understandings, this collection may include other people as well. For instance, if the interactants assume that the grounded information is also applicable to a number of individuals who belong to a large-scale collective—members of a large social category such as a community, a nation, or a cultural group—then the common ground may be generalized to this large-scale social group. In this latter case, the common ground contains information about *cultural identity*, that is, who shares the cultural information. To sum up, as a consequence of grounding processes, two kinds of information come out of a social interaction episode: *cultural information* and *cultural identity*, the content of the cultural information and the collection of people who share it. The combination of the two constitutes common ground.

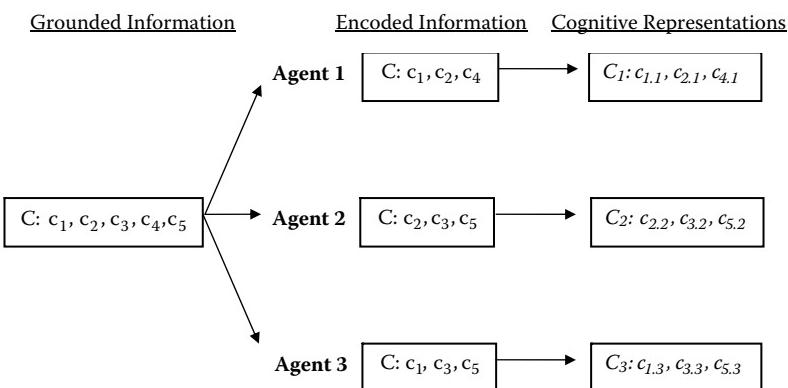
As a consequence of an interaction episode like this, the grounded information—both who and what information—is represented as part of the interactants' memories about the episode of their joint activity. Kashima, Woolcock, and Kashima's (2000) tensor product model suggests that it is likely to be encoded as a configuration of information including the *group membership* of the interactants ("who" information, or cultural identity; e.g., my countrymen, Americans, Chinese), their personal interpretations of the *content of the episode* ("what" information, or cultural information; i.e., the content of the grounded information), and the *context of activity* in which it occurred (e.g., when you had a conversation with your friend's boss). This model postulates that each aspect of the episode is represented as a pattern of activation over multiple information processing units. In this regard, it is similar to Hintzman's (1986) multiple-trace memory model. Each processing unit extracts different sorts of information from the episode, but what information it is depends on the system's initial wiring (analogous to a person's genetic make-up) and subsequent learning history (analogous to the person's life experience). What makes the tensor product model different is its suggestion that different aspects of the encoded episode (e.g., group membership, episode itself, context of activity) are *configurally combined* to construct a mental representation of the interaction episode. (The tensor product model is so called because of this configural combining, often called *binding*, and modeling by a mathematical construction called a tensor.) Configural representations of numerous social interaction episodes are cumulated in this distributed memory system, which continuously and dynamically updates itself over time as it cumulates more episodic information.

Two general consequences follow. First, the representations of cultural information are not identical across the interactants. One may hold some of the information, but another may represent only some other aspects of it, still another may present partially overlapping but different aspects of the cultural information, and so on. In the abovementioned example, you might hold the information about what the boss said and what your friend said in reply; your friend may only remember what the boss said; and the boss may not remember anything from this simple interaction episode. The interactants' current psychological states are likely to affect the kind of information extracted from the episode. This implies that the cultural information is likely to be *interpersonally distributed* (e.g., Hutchins, 1995); it is unlikely to be uniformly distributed across individuals within a population. Second, each interactant's representation of the cultural information is stored in a distributed memory system within each interactant. That is, information is represented as a pattern of activation over information processing units, which individually follow simple input-output rules but collectively perform surprisingly complex information-processing tasks. In other words, cultural information is *intrapersonally distributed* as well. Cultural information, then, is *doubly distributed* across and within people (Kashima, 2004).

Figure 3.2 schematically represents this process. The upper panel illustrates it pictorially. The central figure with overlapping irregular figures indicates a rather amorphous collection of cultural information, which is grounded in the interaction episode. Its parts are encoded by each interactant



(A)



(B)

FIGURE 3.2 Schematic representations of cultural transmission. Note: The upper panel is an illustration of three agents' grounding of cultural information in a social interaction episode. The lower panel illustrates a metatheoretical representation of this interaction episode in terms of the communicative and cognitive processes within the doubly distributed representational system. In the lower panel, C = global concept or cultural meaning unit; c_i (c_1, c_2 , etc.) = a component of C ; C_j = Agent j 's encoding of C ; c_{ij} = Agent j 's encoding of a component, c_i ; *italicized* C_j = distributed cognitive representation of C_j in Agent j , which may be technically seen as a vector, or a pattern of activation in a distributed memory system; c_{ij} = distributed cognitive representation of c_i in Agent j , which again may be technically seen as a vector, or a pattern of activation in a distributed memory system.

and stored in his or her memory system as a distributed cognitive representation. The lower panel depicts a conceptual model of the causal processes involved in a cultural transmission episode. The grounded information is simplified as hypothesized cultural information, C, which is hypothesized to have c_i (where $i = 1, 2, 3$, etc.) as its components. Because this information is publicly observable and conceptually describable using symbols available to the interactants (after all, it was communicated among them), it is not specific to a particular interactant (i.e., it is not subscripted for interactant). However, when each interactant encodes the cultural information, only a subset of the cultural information is encoded. Again, this subset is likely to be describable using symbols available among the interactants (e.g., C: c_1, c_2, c_4). Note that the figure deliberately describes the situation where the subsets encoded by the interactants do not have even a single component that is shared by all the interactants. This emphasizes the distributed nature of the representation of the cultural information; obviously, some components can be shared by all those who are involved in the interaction episode. This subset is theoretically stored in a distributed representational system whose processing units are likely idiosyncratic to each interactant and not necessarily describable by shared conceptual meanings. Such a distributed representation may be thought of as a pattern of activation over the information-processing units, which can be technically described by a vector subscripted for interactant (e.g., $C_I: c_{1,I}, c_{2,I}, c_{4,I}$). The result of a history of such particular interaction episodes over the person's life span up to a certain point in time represents his or her enculturation at the time.

Thus enculturated, people make use of their cultural information by accessing their distributed representational systems. In the current model, cues used to access the system largely determine the information retrieved from the system. Recall that a social interaction episode is assumed to be configurally encoded as a combination of a group membership implicated in the episode (cultural identity), the episode of cultural information transmission, and the context of activity in which it occurred (what they were doing when it occurred). This means that, roughly speaking, cultural information associated with the cultural identity and context of activity similar to the current cultural identity and context of activity is likely to be retrieved from the system. To put it differently, when people are engaged in a certain joint activity, cues available in the activity can bring out from their memory system the cultural information that they have learned when they were engaged in similar joint activities as members of their cultural group. Consequently, cultural information retrieved for current use is highly context specific. Depending on whom people regard themselves as (cultural identity) and what they are currently doing (activity), they may access very different sets of past interaction episodes, and therefore very different kinds of cultural information. It is such context-specific cultural information that informs domain-specific psychological processes.

Note that this sketch of cultural transmission assumes that at the time of an interaction episode, some symbols or signs exist that embody the knowledge shared among the interactants. Furthermore, these individuals are competent to use such symbols as a result of biological evolution and cultural learning. These symbols do not have to be a fully fledged natural language, but can take other forms as well, including gestures, cultural icons, and the like. However, they need to be "shared" to the extent that they work as a medium for transmitting unshared cultural information. It is also assumed that the grounding and cognitive processes operate regardless of the relative amounts of cultural information the interactants have. Therefore, any episode of cultural information transmission is assumed to result in intrapersonally and interpersonally distributed cognitions, whether it occurs between people of the same generation (Cavalli-Sforza & Feldman's, 1981, horizontal transmission), or between people of different generations (vertical or oblique transmission in the case of parent to child, or non-parent adult to child, respectively; it is also possible to have reverse-vertical or reverse-oblique transmission, in the case of children transmitting information to parents and others in an older generation).

To sum up, any social interaction episode is potentially an instance of cultural transmission. A person accumulates numerous such episodes of joint activities with a variety of others in a variety of contexts over time. A person's enculturated psychological processes at any time are largely a result

of his or her past psychological engagement with a countless number of joint activities *in situ*. In other words, an enculturated person's psychological processes at a given time depend on the totality of his or her history of psychological engagement and experiences with the cultural information he or she has encountered, including the type of joint activities in which he has been engaged, which parts of those joint activities the person has performed, the situations in which the activities have occurred, and the frequency and order of their occurrence. The specific cultural learning episodes accumulate in an individual's distributed cognitive system, which then operates to produce domain-specific psychological processes. The operation of these domain-specific psychological processes can then be summarized as domain-specific psychological constructs, which most cultural psychologists use to examine and theorize cultural differences.

AN EXEMPLAR: SERIAL REPRODUCTION OF CULTURAL STEREOTYPES

How can this neo-diffusionist framework be used to examine the process of cultural information transmission and the formation, maintenance, and transformation of culture? Kashima and his colleagues' (e.g., 2000b; Lyons & Kashima, 2001, 2003; Clark & Kashima, 2007) research on cultural stereotypes provides an exemplar. They argued that widely shared stereotypes such as racial, gender, and occupational stereotypes are examples of cultural information, and they examined the process by which such cultural stereotypes are maintained by exploring how people in a communication chain communicate stories that embed information that bears on those stereotypes. For instance, Kashima (2000b) constructed a story about a man, a woman, and their interaction in a day. The man would perform such stereotypically male behaviors as lawn mowing; the woman would also perform similarly stereotypical behaviors such as preparing a meal. However, they would also perform such counter stereotypical behaviors as the man panicking, and the woman going out with her female friends for a drink at a pub. The first person in a communication chain read this story and wrote it for the second person, who in turn wrote it for the third person, and so on until the fifth person reproduced it. This experimental design—the method of serial reproduction—was initially used by Bartlett (1932) in his memory research and later used by Allport and Postman (1947) in their rumor transmission research.

Examination of the content of the reproduced story can tell us what type of cultural information is likely transmitted in communications. First of all, the central plot of the story (the main point of the communication) was communicated much better than the background information (the peripheral aspect of the story). This is to be expected. After all, people are engaged in the joint activity of telling a story—gossiping is a real-life example of this—and they would deliberately communicate the main point of the story.

Secondly, when communicating about the central story plot, the first and second communicators in the chain reproduced more counterstereotypical information than stereotypical information. Presumably, the communicators were surprised about the counterintuitive information, motivated to think more about it, and more likely to reproduce it for transmission; in fact, a number of experiments found this pattern before (e.g., Hastie & Kumar, 1979; Srull, 1981; for a review, Stangor & McMillan, 1992). Intriguingly, this tendency to reproduce counterstereotypical information more than stereotypical information was reversed toward the end of the communication chain. The fourth and fifth people tended to reproduce more stereotypical information than counterstereotypical information. In other words, stereotypical information was more likely retained through communications in the long run, though counterstereotypical information was reproduced earlier, and therefore, as stories circulate in a population for a long time, they may be more likely to contribute to the maintenance of the stereotype—an instance of cultural maintenance.

Thirdly, the reproduction of the background information to the story also showed an intriguing pattern. People reproduced more stereotypical information than counterstereotypical information, regardless of their positions in the communication chain. In other words, although early communicators in a chain may communicate more counterstereotypical information in the main plot of

the story, they reproduced stereotypical information when it came to the background information peripheral to the story. This observation implies that the information that is not central to the joint activity (i.e., background information in a story) may also play an important role in cultural maintenance. Most models of distributed memory systems (e.g., Kashima, Gurumurthy, Ouschan, Chong, & Mattingley, 2007) can explain the reproduction of stereotypical information quite readily.

Not only do communications contribute to the maintenance of cultural stereotypes about out-groups but also to the maintenance of stereotypes about in-groups. Kashima and Kostopoulos (2004) found that when Australian students communicated a story about an Australian couple who exhibited both stereotypically Australian behaviors and counterstereotypical behaviors, the communicated story became increasingly stereotypical. This has an interesting implication for the maintenance of a cultural norm. In-group stereotypes often contain information about what is normative for the in-group—what typical members of the in-group do and should do. As stories circulate in a group, they portray an increasingly stereotypical picture of what members of the in-group are like; in so doing, the stories may act to reinforce the cultural norm of the in-group.

Why do people communicate increasingly stereotypical information? After all, stereotypical information is not very informative—it tells people what they already “know.” Recently, Clark and Kashima (2007) suggested that communicators face a dilemma in communicating stereotypical and counterstereotypical information. Although stereotypical information is less informative than counterstereotypical information, stereotypical information may be seen to be more socially connective—more likely to be seen to be friendly and attempting to make friends with the audience—than counterstereotypical information. This is because cultural stereotypes are often seen to be shared and endorsed within the communicators’ in-group; if cultural stereotypes about out-groups are normative, information that is consistent with them may be seen to convey the social connection between the communicator and the audience. That is, by communicating stereotypical information, people may be tacitly “communicating” their common in-group membership. Consistent with this line of reasoning, Clark and Kashima found that stereotypical information was seen to be less informative but more socially connective than counterstereotypical information. The more socially connective a given piece of cultural information, the more likely it survived in the communication chain—it was more likely to be retained in later reproductions. Finally, when communicators were told that their in-group did not endorse the cultural stereotypes, stereotypical information was seen to be less socially connective than when they were told their in-group endorsed them. As a consequence, stereotypical information was less likely communicated when their in-group was seen not to endorse the stereotypes.

This line of research suggests that cultural information such as stereotypes is communicated as the main point of people’s joint activities as well as their peripheral aspects. As stories and other forms of semiotic constructions are transmitted and diffuse in a population, they carry cultural information with them and distribute it widely in the population. The more likely a certain type of cultural information diffuses in a population, the more likely people are exposed to it through specific episodes of joint activities over time. They are cumulated in people’s distributed memory systems and have cumulative effects on those people.

OTHER MODELS UNDER NEO-DIFFUSIONIST METATHEORY

The collection of ideas—semiotic model, grounding model, and tensor product model—outlined in this chapter differs from other models that take neo-diffusionist metatheory mainly in two respects. First of all, the mechanism of cultural information transmission is assumed to be highly coordinated, much more so than others have assumed (e.g., Cavalli-Sforza & Feldman, 1981; Dawkins, 1976; Boyd & Richerson, 1985). These theories regard the transmission of cultural information as something like fax transmission of information from one person to another. Henrich’s (2001; Henrich & Boyd, 2002) recent work extends Boyd and Richerson’s dual inheritance model; however, his work too is geared toward a global understanding of the distribution of cultural information, and

less concerned about the microsocial structure of cultural information transmission processes. In contrast, the grounding model suggests that this process is highly *social* and that a great deal of coordination among interactants is necessary. One potential exception to this is Sperber's (1996) epidemiological model of cultural evolution, which would regard transmission of cultural information as involving a much greater degree of cognitive inferences (Sperber & Wilson, 1995). However, even this is a primarily cognitive theory. It does not take into consideration the highly social and interpersonally coordinated nature of the communication process.

The second respect in which the current model differs from others is its explicit commitment to the dynamic nature of the doubly distributed representations that are infused with cultural meaning, the episodic nature of cultural information transmission, and the continuously evolving nature of cultural information, cultural identity, and cultural community or group. Krauss and Fussell (1996) used Bakhtin's terminology of *dialogic*—a highly collaborative and episodic approach to interpersonal communication—to characterize Clark's (1996) grounding model of language use (from which the grounding model of cultural transmission borrows heavily). However, Clark's grounding model assumes that a cultural community where a population of people share cultural information and the cultural identity for them are given. It assumes that there are certain cultural communities whose members share their cultural identities, and that people know about these to communicate with each other. In contrast, while acknowledging this to be the case at a given point in time, the current model assumes that even a cultural community and a cultural identity to go with it are formed, maintained, and transformed through social interactions and are therefore evolving over time. People construct, generalize, and maintain their representation of cultural information and cultural group as they go about engaging in their joint activities with a number of people in a number of contexts. As they engage in further joint activities, these representations are further disseminated and cumulated within the doubly distributed fashion—across and within individuals.

There remain two other approaches that share a great deal with the current line of thinking. Shore's (1996) cultural models approach is one. He regards culture as consisting of a number of cultural models, which provide a locally coherent set of domain-specific cultural information. He regards cultural models as something that may be psychologically represented or instantiated in institutions and other cultural artifacts. Chiu, Hong, and their colleagues' (2006; Hong et al., 2001) dynamic constructivism highlights the psychological side of Shore's cultural models, namely, cognitive representations of domain-specific cultural information, and refines and extends it further by explicating the dynamic and constructive processes of acquisition and use of these knowledge structures in social processes. At the same time it clearly acknowledges that cultural information is often coded into cultural artifacts such as cultural icons, newspaper articles and others. Indeed, what I have generically called domain-specific psychological constructs is in many ways similar to Shore's cultural models and Chiu, Hong, and their colleagues' knowledge structures. I share Chiu, Hong, and their colleagues' conviction that cognitive processes are dynamic and constructive. Furthermore, both regard cultural information as interpersonally distributed.

Nonetheless, the collection of ideas that I sketched out in this chapter differs from these theories in three respects. First, the tensor product model suggests that cultural information is represented in an intrapersonally distributed way within a distributed cognitive representational system. The basis of cultural information representation and retrieval is assumed to be highly *episodic*, in that an instance of cultural information transmission forms the basis of enculturation and the use of cultural information. Second, the grounding model takes the view that the acquisition and use of cultural information is based on joint activities. *Because* cultural information is acquired through specific joint activities, this model not only recognizes that cultural information is domain specific and interpersonally distributed, but it also *explains* why that is so. Third, the semiotic model offers a principled way of conceptualizing the relationship between domain-general concepts such as individualism and collectivism and domain-specific psychological constructs. To be sure, Shore's (1996, p. 53) distinction between foundational schema and cultural models is akin to the current distinction between domain-general interpretive concepts and domain-specific psychological constructs.

However, he does not spell out the difference in terms of their metatheoretical status. In the semiotic model, domain-general concepts are *interpretive concepts*, which do not always enter into the causal flow of events in everyday life (except in the rare case sketched out at the end of the previous section), but domain-specific psychological constructs are *casual explanatory concepts*.

THE TWO PROBLEMS OF THE STANDARD MODEL REVISITED

Revisiting the cultural coherence problem. The neo-diffusionist metatheory as outlined here has a number of similarities with sociohistorical theories inspired by Vygotsky and Bakhtin (e.g., Cole, 1996; Lave & Wenger, 1991; Rogoff, 2003; Wertsch, 1991). Indeed, the current model's emphasis on *activities* owes Cole (1996) a great deal, who urged us to pay close attention to everyday activities. In my view, however, these theories suffer from the problem of cultural coherence in a reverse way. The theories can explain the situation-dependency part of the cultural coherence problem (that is, the fact that psychological measures that purport to tap domain-general psychological constructs such as individualism and collectivism show weak correlations within a culture). However, they have a hard time explaining why these psychological measures show systematic cultural differences to begin with. I believe this issue is analogous to Jahoda's (1980) early charge that Cole's tenacious context-dependent approach to culture and cognition lacks "global theoretical constructs relating to cognitive processes" (Jahoda, 1980, p. 126). And, Cole (1996) admits that "these deficiencies [do not] disappear quickly" (p. 330), and there is "the need for generalization" (p. 330).

The present model provides several mechanisms to satisfy the need for generalization, that is, to explain why there are the systematic and global cultural differences in domain-specific psychological constructs, which the standard model can so easily explain. First, the distributed cognitive system has a built-in generalization mechanism. All the parallel distributed processing models, including the tensor product model described earlier, can explain how representations of specific episodes are cumulated in the system to produce a "prototype" or a generalization of those specific episodes. However, the tensor product model (Kashima et al., 2000) suggests that generalization of cultural information is likely to be moderated by the context of activity in which those episodes are learned. In other words, a domain-specific psychological construct that is acquired through the activity-based and episode-based cultural learning can be generalized within a certain class of situations and domains. However, this generalization is likely limited to these situations and domains and unlikely to proceed to all situations and domains.

What other mechanisms for generalization are there? One possibility is a sheer coincidence. Latané (1996; Latané & L'Herrou, 1996) suggested that due to the frequency of interaction among people who are spatially close to each other and the relative absence of interaction between those who are spatially distant, separate clusters of joint activities emerge in different geographical areas. This suggests that two or more joint activities could be prevalent in two distant geographical regions typically regarded as different cultures. These may then give rise to domain-specific psychological constructs that show cultural differences. However, there may be no theoretically meaningful relationship between the joint activities or between the psychological constructs.

Another possibility is the case of a "third variable," an independent process that may generate two or more types of joint activities and, therefore, the associated domain-specific psychological constructs. Theories of Western modernization provide a good example. According to these theories, the sociocultural change called modernization is driven by one of two processes: technological development including industrialization, and capitalism as a mode of production. These processes transformed traditionally close-knit communities into modern urban societies. In the meantime, different types of individualist concepts and practices may have emerged in parallel in different spheres of joint activities. The ideas of political liberalism, the ideology of economic competition, and the principle of religious freedom may have all arisen in the political, economic, and religious spheres of joint activities in Western Europe in response to the massive change in the era of the Industrial Revolution and market economy (see Kashima & Foddy, 2002,

for a brief treatment of this vast topic). Each of these different spheres of joint activities may be characterized by different concepts and practices, which are all engaged in the causal flow of events within each of those specific contexts. However, although the activities are not causally linked to a more domain-general psychological construct, they may be understood in terms of an interpretive concept of individualism (Lukes, 1973; for a similar discussion, see Chiu & Hong, 2006, pp. 194–198).

A third possibility is the case of analogical transfer (Kashima & Callan, 1994; Shroe, 1996) in the past. One type of joint activities in one context may become a basis from which to analogize to another type of joint activities in a different context. For instance, when the concept of modern companies (i.e., *kaisha*) was introduced to Japan after a long period of the closure of Japan (i.e., *sakoku*), the joint activities that took place in Japanese traditional households (i.e., *ie*) may have been used as an analogy to understand the novel and unfamiliar concept of modern companies (i.e., *kaisha*) and to construct the joint activities that take place in the latter context (Kashima & Callan, 1994). When this analogical transfer is taking place, individuals' psychological processes in the familiar sphere of activities (e.g., *ie*, household) are generalized to their modes of operation in the new and unfamiliar sphere (e.g., *kaisha*, company). Therefore, putative measures of the psychological constructs in these two contexts are likely to be correlated. However, once the analogical transfer is complete, and the new and unfamiliar sphere establishes its own joint activities, these spheres of activities may establish their own, different causal structures. As a result, initially correlated measures of the domain-specific psychological constructs may no longer correlate. In this case, there may be a systematic cultural difference in both the old and the new contexts, although an individual does not have to activate the same psychological constructs in these different contexts.

Revisiting the cultural causation problem. The current model sheds new light on the cultural causation problem. Recall that putative measures of what is supposed to be a domain-general psychological construct (e.g., self-construal) cannot often account statistically for a cultural difference in a measure of a domain-specific psychological construct. However, the current line of reasoning suggests that it is possible to construct a measure of a domain-specific psychological construct to statistically account for a cultural difference in a different measure of another domain-specific psychological construct. One way is to develop a measure of the explanatory construct in such a way that it taps the psychological experiences and joint activities that engage the psychological processes for the psychological construct that needs to be explained.

Kashima, Siegal, Tanaka, and Kashima's (1992) research provides an example. They examined cultural differences in correspondence bias—the tendency to infer a corresponding disposition based on the observation of a behavior. They showed that, after reading an opinion essay, Australians were more likely than their Japanese counterparts to infer the essay writer to have a corresponding attitude. This type of cultural difference had been explained in terms of individualism or independent self-construal of the Australians relative to the Japanese. However, in this study, they measured Australian and Japanese participants' beliefs in attitude-behavior consistency, namely, beliefs that an attitude causes a corresponding behavior as an explanatory variable. They showed that Australians had a stronger tendency to believe attitudes cause corresponding behaviors, and also the cultural difference in correspondent bias disappeared when the former was statistically controlled for. In other words, cultural differences in attitude-behavior consistency beliefs could explain the cultural differences in correspondence bias in attitude attribution.

A more recent example comes from Kim and Sherman's (2007) demonstration that European Americans exhibited a stronger tendency to bias their thoughts in line with their verbal self-expression than East Asian Americans did. In particular, European and East Asian Americans were asked to make a choice about pens and to state later their attitudes toward the pen they did not choose. In one condition, they were asked to verbally express their thoughts and feelings about their choice, but in the other condition, they were prevented from doing so. European Americans' subsequent

attitudes were more in line with their behavioral choices when they verbally expressed their feelings than when they did not. In contrast, Asian Americans' attitudes were not affected by their verbal expression. Furthermore, they measured participants' values of verbal self-expression by asking the participants' behavioral patterns (e.g., "I express my feelings publicly regardless of what others say"). This latter measure could statistically account for the cultural difference in the effect of verbal expression on choice-attitude consistency. This measure of values of verbal expression was couched in terms of independent and interdependent self-construal; independent self-construal implies a greater value of verbal expression than interdependent self-construal.

What is common in Kashima et al. (1992) and Kim et al. (2007) is that the measures of the psychological constructs used to predict the cultural differences (beliefs in attitude-behavior consistency and values of verbal self-expression) could statistically account for cultural differences in psychological processes to be explained. Most importantly, although these measures of the explanatory constructs were *interpreted* in terms of the domain-general concepts of individualism-collectivism or independent-interdependent self-construal, they were designed to tap more specific psychological experiences that are directly relevant to the psychological process of interest. In Kashima et al., beliefs in attitude-behavior consistency were closely linked to the psychological processes of inferring an attitude from an observed behavior. In Kim et al., values of verbal expression measured in terms of participants' own tendencies to use verbal behavior as a way of expressing one's own preferences and feelings were clearly closely related to the psychological process of aligning their attitudes to their behavioral choice. The critical ingredient for successfully explaining the cultural differences was, I would argue, the domain-specific nature of these measures of the explanatory constructs.

Kitayama, Snibbe, Markus, and Suzuki (2004) provided an alternative way of exploring the cultural causation problem in their examination of cognitive dissonance reduction. Participants were asked to select 10 favorite CDs out of 30, given an opportunity to choose one of the two CDs that they ranked fifth and sixth, and then later asked to report their preference ranking of the 10 CDs again. Cognitive dissonance theory suggests that they would increase the liking of the chosen CD, but decrease the liking of the unchosen one. Kitayama et al. surmised that because American university students typically have independent self-construals, they would show the standard cognitive dissonance reduction. In contrast, they expected that Japanese students, who have interdependent self-construals, would show a comparable dissonance reduction effect only when they felt that their decisions were under other people's scrutiny. To prime interdependent self-construal, Kitayama et al. used a variety of methods (for example, asking participants to think about the preferences of the average student, or showing them schematic faces with eyes staring at them). The predicted dissonance effect was obtained for Japanese participants when the interdependent self-construal was primed. Note, however, that this method of priming does not necessarily activate the domain-general psychological construct of interdependent self-construal per se. Rather, these experimental procedures make use of ideas and practices that are much more specific to the everyday activities of the Japanese university students, and therefore may activate the domain-specific constructs that are acquired through those everyday activities prevalent in Japan for the Japanese university students. This priming method presumably reminded the Japanese participants of their worries about other people's expectations and approvals.

A series of studies conducted by Kühnen and his colleagues (Kühnen, Hannover, & Schubert, 2001; Kühnen & Oyserman, 2002) presents a particularly intriguing instance of exploring the cultural causation problem. In Study 4 (Kühnen et al., 2001), for instance, English speakers were asked to circle the singular or plural pronouns "I" or "we" in English texts. Then, they performed a series of embedded figures tasks, in which they were asked to find simple figures in complex pictures. For instance, a letter T (a simple figure) may be embedded in a complex picture made up of squares and rectangles. The participants' task was to find the letter T as quickly as possible. It was hypothesized that people who use analytical cognitive processes are more efficient at this task. Indeed, Kühnen et al. found that those who circled "I" did better on the embedded figures task than those who circled "we." Using other methods to activate independent or interdependent self-construal and to observe

cognitive processing styles, Kühnen and his colleagues found a similar pattern in Germany and the U.S. The results were interpreted as showing that the activation of the domain-general independent self-construal (i.e., circling “I”) results in the activation of the domain-general analytical cognitive style (i.e., abstracting simple figures from complex pictures).

The current model, however, provides an alternative interpretation of the results. That is, in English-speaking cultures, the singular pronoun “I” may be more often used when the cognizer is engaged in an analytical processing of information where a figure is extracted from its ground for “me”; however, when the plural pronoun “we” is used, English speakers may be unlikely engaged in the analytical processing of information. Analysis and the extraction of specific object information from context is likely to be construed as *my* individual activity that *I do by myself*, but not *our* collective one that *we do together*. In other words, English-speakers may think of exerting cognitive efforts to identify simple figures in complex pictures as something that the individual does, but not necessarily something that they work on as a group. When they are induced to think of themselves as individuals, *I*, who are differentiated from others, they may be able to concentrate on their cognitive task more, and their analytical task performance may be enhanced. In contrast, when they are induced to think of themselves as members of a group, *we*, who are socializing with others, their performance in this cognitive task may be hindered. This reasoning implies that the priming of singular as opposed to plural pronouns results in analytic cognition because people engage in analytical tasks by themselves individually, rather than with other people collectively. An intriguing possibility is that thinking in terms of *I* may not result in analytic cognition in some cultures and linguistic communities. If there are cultures in which analytical cognitive activities are associated with group work rather than personal, activating *we* may in fact enhance analytical processes.

To put it more generally, cultural causation of a psychological phenomenon in the current model means that a domain-specific psychological construct, which emerged from and embedded in the causal structure of the joint activities, may be activated to generate the psychological phenomenon of interest. There are two main ways to show this. One is to develop a measure of the explanatory construct that taps the distributed representations of the specific memories of the joint activities through which the domain-specific psychological construct was acquired. This is more likely when a measure makes use of the concepts and practices that are used in the everyday joint activities prevalent in a given cultural group. The other way is to activate those distributed representations of the specific memories of the joint activities, so that the relevant psychological experiences are reactivated and reproduced. Some of the cultural priming techniques—Hong, Morris, Chiu, and Benet-Martínez’s (2000) priming by cultural icons such as the Great Wall of China and the Statue of Liberty—may do just that.

One remaining question is whether the cultural coherence and cultural causation problems always exist in cultural psychology. Another way of asking the same question is whether under the neo-diffusionist metatheory global concepts such as individualism and collectivism should always be construed as interpretive concepts rather than causal explanatory constructs, as the semiotic model suggests. The answer is no, not always. Global concepts *can* become involved in everyday joint activities (e.g., cultural psychologists discussing psychological processes), so much so that a group of individuals (e.g., cultural psychologists) may begin to form and develop a domain-specific psychological construct to process relevant information. If these individuals find this construct to be applicable to more and more contexts and domains, they may end up developing a domain-general psychological construct that is causally involved in the activation of all the domain-specific constructs. If this circle of individuals expands with increasingly greater diffusion of this information, it is at least theoretically possible for the standard model to explain the psychological processes of a greater number of people. This is the kind of process that Gergen (1973) outlined in his argument for social psychology as a historically contingent knowledge. My answer here is that the standard model is wrong and the semiotic model is right *now*, but this may not always be the case according to the neo-diffusionist metatheory. Under the circumstances sketched above, the standard model *could* become the right one in a possible, but perhaps improbable, future. Then, empirical data will

conform to the standard model, and there will no longer be problems of cultural coherence and cultural causation.

CONCLUDING COMMENTS

On the surface, the cross-cultural and culture priming studies appear to represent two methodological styles of research. However, a purely methodological analysis fails to bring out deeper conceptual issues lurking underneath, that is, the issue of micro-macro relationship in cultural psychology and the issue of explanatory and interpretive theories in social science. As Oyserman and Lee (in press, a, b) insisted, the culture-priming research urges us to adopt a more situated conception of culture. Even then, depending on how one understands the existing culture theories in psychology, there arise some knotty problems. The standard model of these theories, which I constructed as a straw man (*sic*) to clarify what these problems are, regards global culture concepts such as individualism and collectivism, independent and interdependent self-construal, and holistic and analytic cognitive styles as domain-general psychological constructs that are *causally implicated* in the psychological processes that exhibit cultural differences.

Nonetheless, the standard model runs into the dual problems of cultural coherence and cultural causation. The standard model explains the systematic cultural differences found on domain-specific psychological constructs that are summarized under the global culture concepts, but it cannot explain why those domain-specific psychological constructs do not correlate with each other. What appears to be coherently describing cultural differences does not cohere when correlated across individuals within a cultural sample. Likewise, purported measures of the global culture concepts do not statistically account for the systematic cultural differences on those domain-specific psychological constructs. The semiotic model was proposed as an alternative understanding that avoids these problems, in which the global culture concepts are regarded as interpretive concepts, rather than causal explanatory ones. In the semiotic reading of the culture theories, the global concepts are used to understand and interpret the systematic cultural differences, but it is only the domain-specific psychological constructs that are implicated in the causal structure of the enculturated mind.

The dual problems of the standard model, cultural coherence and cultural causation, result from the metatheoretical tension between context-dependency and need for generalization. Mead's (1934) symbolic interactionism also grappled with these issues, and the semiotic model owes a great deal to his work (see Kashima, Gurumurthy, Ouschon, Chong, & Mattingley, 2007). Mead's solution was to describe a developmental pathway from highly context-specific initial cultural learning, through more complex interactive symbolic play, to the production of the "generalized other" of society as a whole. These social developmental mechanisms toward cultural coherence notwithstanding, other mechanisms—some cognitive, others sociohistorical—also operate to generate the systematic cultural differences that are interpretable by using global culture concepts such as individualism and collectivism. Nonetheless, these systematic and global differences may be generated, maintained, and potentially transformed by context- and domain-specific activities through which domain-specific psychological constructs are acquired.

With these considerations in mind, the semiotic model of the culture theories was placed within a greater metatheoretical framework of neo-diffusionism. In this view, culture is a collection of nongenetically transmitted information. People acquire it through their participation in joint activities with others. The joint activities are domain-specific in that they typically make use of a certain domain of cultural information, and they are context-specific in that they typically occur within a certain type of social context. The domain-specific psychological constructs form and develop in enculturing agents' distributed cognitive systems as they engage in these joint activities through the process of grounding—collaborative and coordinated activities that transmit cultural information. It is the traces of these specific psychological episodes of the engagement with the joint activities that form the basis of the domain-specific psychological constructs. Cultural psychologists measure them, or otherwise engage them in task performances, so that their operations can be

observed. If domain-specific psychological constructs are based on the same underlying traces of the psychological episodes of the engagement with the joint activities, then measures of these constructs should correlate with each other and priming of one should activate the other.

Enculturated agents equipped with the domain-specific psychological constructs keep on interacting with each other, engaging each other in a variety of joint activities, cumulating experiences of these engagements, and transforming their domain-specific psychological constructs. Note that those joint activities they engage in are in fact the very activities that get their society and culture going. They produce and reproduce the social relationships and cultural resources that enabled these joint activities to take place to begin with. In the end, psychological constructs co-evolve dynamically with society and culture in our engagement with the stream of ongoing activities in everyday life.

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REFERENCES

- Allport, G. W., & Postman, L. F. (1947). *The psychology of rumor*. New York: Russell & Russell.
- Bartlett, F. C. (1932). *Remembering*. Cambridge, UK: Cambridge University Press.
- Boyd, D., & Richerson, P. J. (1985). *Culture and the evolutionary process*. Chicago: The University of Chicago Press.
- Brewer, M., & Gardner, W. (1996). Who is this “we”? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71, 83–93.
- Campbell, D.T. (1975). On the conflicts between biological and social evolution and between psychology and moral tradition. *American Psychologist*, 30, 1103–1126.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81–105.
- Cavalli-Sforza, L. L., & Feldman, M. W. (1981). *Cultural transmission and evolution: A quantitative approach*. Princeton, NJ: Princeton University Press.
- Chao, M. M., Zhang, Z.-X., & Chiu, C.-Y. (in press). Personal and collective culpability judgment: A functional analysis of East Asian–North American differences. *Journal of Cross-Cultural Psychology*.
- Chiu, C.-Y., & Hong, Y.-Y. (2006). *Social psychology of culture*. New York: Psychology Press.
- Choi, I., Dalal, R., Kim-Prieto, C., & Park, H. (2003). Culture and judgment of causal relevance. *Journal of Personality and Social Psychology*, 84, 46–59.
- Choi, I., Koo, M., & Choi, J. A. (2007). Individual differences in analytic versus holistic thinking. *Personality and Social Psychology Bulletin*, 33, 691–705.
- Clark, A. E., & Kashima, Y. (2007). Stereotypes help people connect with others in the community: A situated functional analysis of the stereotype consistency bias in communication. *Journal of Personality and Social Psychology*, 93, 1028–1039.
- Clark, H. H. (1996). *Using language*. Cambridge, UK: Cambridge University Press.
- Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge, MA: Harvard University Press.
- Dawkins, R. (1976). *The selfish gene*. Oxford, UK: Oxford University Press.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). “I” value freedom, but “we” value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321–326.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Gergen, K. J. (1973). Social psychology as history. *Journal of Personality and Social Psychology*, 26, 309–320.
- Hastie, R., & Kumar, P. (1979). Person memory: Personality traits as organizing principles in memory for behaviors. *Journal of Personality and Social Psychology*, 37, 25–38.
- Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality and Social Psychology*, 82, 903–918.

- Henrich, J. (2001). Cultural transmission and the diffusion of innovations: Adoption dynamics indicate that biased cultural transmission is the predominate force in behavioural change. *American Anthropologist*, 103, 992–1013.
- Henrich, J., & Boyd, R. (2002). On modeling cognition and culture: Why cultural evolution does not require replication of representations. *Journal of Cognition and Culture*, 2, 87–112.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: handbook of basic principles* (pp. 133–168). New York: The Guilford Press.
- Hintzman, D. L. (1986). “Schema abstraction” in a multiple-trace memory model. *Psychological Review*, 93, 411–428.
- Hofstede, G. (1980). *Culture's consequences*. Thousand Oaks, CA: Sage.
- Hong, Y.-Y., & Chiu, C.-Y. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, 19, 181–196.
- Hong, Y.-Y., Morris, M., Chiu, C.-Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: The MIT Press.
- Jahoda, G. (1980). Theoretical and systematic approaches in cross-cultural psychology. In H. C. Triandis & W. W. Lambert (Eds.), *Handbook of cross-cultural psychology: Perspectives* (vol. 1, pp. 69–141). Boston: Allyn and Bacon.
- Ji, L., Nisbett, R. E., & Su, Y. (2001). Culture, change, and prediction. *Psychological Science*, 12, 450–456.
- Kashima, Y. (2000a). Conceptions of culture and person for psychology. *Journal of Cross-Cultural Psychology*, 31, 14–32.
- Kashima, Y. (2000b). Maintaining cultural stereotypes in the serial reproduction of narratives. *Personality and Social Psychology Bulletin*, 26, 594–604.
- Kashima, Y. (2004). Person, symbol, sociality: Towards a social psychology of cultural dynamics. *Journal of Research in Personality*, 38, 52–58.
- Kashima, Y., & Callan, V. (1994). The Japanese work group. In H. C. Triandis, M. D. Dunnette, & L. M. Hough (Eds.). *Handbook of Industrial/Organizational Psychology* (Vol. 4, pp. 610–646). Consulting Psychologists Press. Palo Alto, CA.
- Kashima, Y., & Foddy, M. (2002). Time and self: The historical construction of the self. In Y. Kashima, M. Foddy, & M. Platow (Eds.). *Self and identity: Personal, social, and symbolic* (pp. 181–206). Mahwah, NJ: Erlbaum.
- Kashima, Y., Gurumurthy, A. K., Ouschan, L., Chong, T., & Mattingley, J. (2007). Connectionism and self: James, Mead, and the stream of enculturated consciousness. *Psychological Inquiry*, 18, 73–96.
- Kashima, Y., & Haslam, N. O. (2007–2008). Explanation and interpretation: An invitation to experimental semiotics. *Journal of Theoretical and Philosophical Psychology*, 27–28, New York: Elsevier.
- Kashima, Y., Klein, O., & Clark, A. E. (2007). Grounding: Sharing information in social interaction. In K. Fiedler (Ed.), *Social communication* (pp. 27–77). New York: Psychology Press.
- Kashima, Y., & Kostopoulos, J. (2004). Cultural dynamics of stereotyping: Interpersonal communication may inadvertently help maintaining auto-stereotypes too. *Cahiers de Psychologie Cognitive/Current Psychology of Cognition*, 22, 445–461.
- Kashima, Y., Peters, K., & Whelan, J. (2008). Culture, narrative, and human agency. In R. Sorrentino & S. Yamaguchi (Eds.), *Handbook of motivation and cognition across culture* (pp. 393–421). New York: Elsevier.
- Kashima, Y., Siegal, M., Tanaka, K., & Kashima, E. S. (1992). Do people believe behaviours are consistent with attitudes? Towards a cultural psychology of attribution processes. *British Journal of Social Psychology*, 31, 111–124.
- Kashima, Y., Woolcock, J., & Kashima, E. (2000). Group impressions as dynamic configurations: The tensor product model of group impression formation and change. *Psychological Review*, 107, 914–942.
- Kim, H. S., & Sherman, D. K. (2007). “Express yourself”: Culture and the effect of self-expression on choice. *Journal of Personality and Social Psychology*, 92, 1–11.
- Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2003). Is there any “free” choice? Self and dissonance in two cultures. *Psychological Science*, 15, 527–533.
- Krauss, R. M., & Fussell, S. R. (1996). Social psychological models of interpersonal communication. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 655–701). New York: The Guilford Press.

- Kühnen, U., Hannover, B., & Schubert, B. (2001). The semantic-procedural interface model of the self: The role of self-knowledge for context-dependent versus context-independent modes of thinking. *Journal of Personality and Social Psychology, 80*, 397–409.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology, 38*, 492–499.
- Latané, B. (1996). Dynamic social impact: The creation of culture by communication. *Journal of Communication, 46*, 13–25.
- Latané, B., & L'Herrou, T. (1996). Spatial clustering in the conformity game: Dynamic social impact in electronic groups. *Journal of Personality and Social Psychology, 70*, 1218–1230.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Leung, K., & Bond, M. H. (2004). Social axioms: A model of social beliefs in multicultural perspective. *Advances in Experimental Social Psychology, 34*, 119–197.
- Leung, K., Bond, M. H., de Carrasquel, S. H., Munoz, C. M., Hernández, M., Murakami, F., et al. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology, 33*, 286–302.
- Lukes, S. (1973). *Individualism*. Oxford, UK: Basil Blackwell.
- Lyons, A., & Kashima, Y. (2001). The reproduction of culture: Communication processes tend to maintain cultural stereotypes. *Social Cognition, 19*, 372–394.
- Lyons, A., & Kashima, Y. (2003). How are stereotypes maintained through communication? The influence of stereotype sharedness. *Journal of Personality and Social Psychology, 85*, 989–1005.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.
- Masuda, T., & Nisbett, R. E. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology, 81*, 922–934.
- Matsumoto, D. (1999). Culture and self: An empirical assessment of Markus and Kitayama's theory of independent and interdependent self-construals. *Asian Journal of Social Psychology, 2*, 289–310.
- Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.
- Menon, T., Morris, M. W., Chiu, C.-Y., & Hong, Y.-Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology, 76*, 701–717.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review, 102*, 246–268.
- Mischel, W., Shoda, Y., & Mendoza-Denton, R. (2002). Situation-behavior profiles as a locus of consistency in personality. *Current Directions in Psychological Science, 11*, 50–54.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review, 108*, 291–310.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*, 3–72.
- Oyserman, D., & Lee, S. W. S. (2008a). A situated cognition perspective on culture: Effects of priming cultural syndromes in cognition and motivation. In R. Sorrentino & S. Yamaguchi (Eds.), *Handbook of motivation and cognition across cultures*, (pp. 237). New York: Elsevier.
- Oyserman, D., & Lee, S. W. S. (2008b). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin, 134*, 311–332.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist, 54*, 741–754.
- Poortinga, Y. H. (2003). Coherence of culture and generalizability of data: Two questionable assumptions in cross-cultural psychology. In V. Murphy-Berman & J. J. Berman (Eds.), *Cross-cultural differences in perspectives on the self: Nebraska symposium on motivation* (Vol. 49, pp. 257–305). Lincoln: University of Nebraska Press.
- Rhee, E., Uleman, J. S., & Lee, H. K. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analyses. *Journal of Personality and Social Psychology, 71*, 1037–1054.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford, UK: Oxford University Press.
- Schimmack, U., Oishi, S., & Diener, E. (2005). Individualism: A valid and important dimension of cultural differences between nations. *Personality and Social Psychology Review, 9*, 17–31.
- Schwartz, S. (1992). The universal content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology, 25*, 1–65.

- Schwartz, S. (1994). Beyond individualism/collectivism: New dimensions of values. In U. Kim, H. C. Triandis, Ç. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory application and methods* (pp. 85–119). Newbury Park, CA: Sage.
- Shore, B. (1996). *Culture in mind: Cognition, culture, and the problem of meaning*. New York: Oxford University Press.
- Sperber, D. (1996). *Explaining culture: A naturalistic approach*. Oxford, UK: Blackwell.
- Sperber, D., & Wilson, D. (1995). *Relevance* (2nd ed.). Oxford, UK: Blackwell.
- Srull, T. K. (1981). Person memory: Some tests of associative storage and retrieval models. *Journal of Experimental Psychology: Human Learning and Memory*, 7, 440–463.
- Stangor, C., & McMillan, D. (1992). Memory for expectancy-congruent and expectancy-incongruent information: A review of the social and social-developmental literatures. *Psychological Bulletin*, 111, 42–61.
- Trafimow, D., Triandis, H., & Goto, S. (1991). Some tests of the distinction between the private and collective self. *Journal of Personality and Social Psychology*, 60, 649–655.
- Triandis, H. C. (1972). *The analysis of subjective culture*. New York: Wiley-Interscience.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, 51, 407–415.
- Triandis, H. C., Chan, D. K.-S., Bhawuk, D. P. S., Iwao, S., & Sinha, J. B. P. (1995). Multimethod probes of allocentrism and idiocentrism. *International Journal of Psychology*, 30, 461–480.
- Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action*. London: Harvester Wheatsheaf.
- Wyer, R. S., Jr. & Carlston, D. E. (1979). *Social cognition, inference, and attribution*. Hillsdale, NJ: Erlbaum.
- Wyer, R. S., Jr. & Srull, T. K. (1989). *Memory and cognition in its social context*. Hillsdale, NJ: Erlbaum.

4 An Intersubjective Consensus Approach to Culture

The Role of Intersubjective Norms Versus Cultural Self in Cultural Processes

Ching Wan and Chi-yue Chiu

Norms influence behaviors, and do so even when the actors privately disagree with the norms and when the norms are imagined rather than real (Asch, 1955; Fishbein & Ajzen, 1975; Reno, Cialdini, & Kallgren, 1993; Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007; Sherif, 1936). National and campus surveys from recent years show that many college students in the U.S. focus on “drinking to get drunk.” In 1999, the severity of campus drinking at the University of Illinois (U of I) caught media attention when a campus survey revealed that an average of four U of I students per weekend were so incapacitated that they had to be hospitalized. Why did these young college men and women, mostly freshmen, drink to the point of endangering themselves? Data from the same survey showed that a major cause was misperception about the drinking norm on campus—first-semester freshmen thought that the average U of I student drank 15 drinks a week, when the reality was half that (*Inside Illinois*, September 18, 1999).

A similar example further illustrates the possibility for groups to have norms with which few personally agree but to which most people confirm. In the early 1990s, Prentice and Miller (1993) noticed abnormally high levels of student alcohol consumption at Princeton University. When the investigators questioned the Princeton students, many were worried by a number of deaths and injuries caused by excessive drinking in the “celebrations” that took place in various eating clubs, rituals, and parties. Nonetheless, they joined in the celebrations for fear of social rejection. In this instance, the personal belief of the majority of the students (i.e., excessive drinking is hazardous to health) did not predict the students’ behavior. Instead, the shared assumption about what other students typically did led the students to engage in excessive alcohol consumption against their better judgment.

In this chapter, we use the term *intersubjective norms* to refer to the assumptions that are widely shared among members of a certain group about the values, beliefs, preferences, and behaviors of most members in the group or in the culture of the group. Intersubjective norms are different from *statistical norms*, which refer to the average or modal values, beliefs, preferences, and behaviors in a group or in the culture of a group. Whereas statistical norms are reflections of the objective reality, intersubjective norms are reflections of people’s shared assumptions of the objective reality. For example, U of I students’ shared perception of most U of I students’ drinking habit (15 drinks per week) is an intersubjective norm, but this perception differs from the statistical norm or the actual average level of alcohol consumption among the students (7–8 drinks per week). Similarly, most Princeton students think that drinking to get drunk is bad (a statistical norm), but they attribute a favorable attitude toward excessive drinking to their peers (an intersubjective norm).

In some instances, the intersubjective reality mirrors the objective reality. For example, most Americans assume that the majority of Americans speak English, and the majority of Americans do speak English. When the intersubjective reality is identical to the objective reality, it is difficult to separate the influence of the intersubjective norms from that of the statistical norms on behaviors. However, in most instances, the intersubjective reality is at least partially dissociated from the objective reality, as in the campus drinking examples. In these instances, the influence of the intersubjective norms can trump that of the statistical norms.

CULTURE AS INTERSUBJECTIVE CONSENSUS

In this chapter, we present an intersubjective consensus approach to culture that complements the common current approach to culture. The intersubjective consensus approach focuses on the role of intersubjective cultural norms in psychological processes. Few cultural theorists would disagree that culture constitutes an intersubjective reality. Part of culture is defined by people's shared representations of reality (Pelto & Pelto, 1975; Romney, Boyd, Moore, Batchelder, & Brazill, 1996). This part of culture involves the "pattern of meanings embodied in symbols" (Geertz, 1973, p. 89) that exists as the cultural information understood by members of the culture (Roberts, 1964). Similarly, Keesing (1981) has characterized culture as a shared system of competence consisting of people's "theory of what [their] fellows know, believe and mean, of the code being followed, the game being played" (p. 58). Thus, a culture lies at least in part in people's common understandings and beliefs about it.

Nonetheless, curiously, much current research on culture and psychology has defined culture operationally as statistical norms—the values, beliefs, personal attributes, and practices that are endorsed or displayed by an average member of the culture. This definition of culture in terms of members' *average* personal characteristics has generated much fruitful research. Despite its merits, however, it has ignored the intersubjective nature of culture.

In the intersubjective consensus approach we propose in this chapter, culture consists of symbolic elements that members of a culture *generally believe* to be important to or characteristic of the culture. These beliefs are collective assumptions about a culture that may or may not align with the actual personal characteristics of members of the culture. In this approach, instead of measuring what the people of a culture are actually like (e.g., how individualist are Americans?), we ask what people collectively think that their culture is like (e.g., how individualist do Americans believe American culture is?). Under this approach, members of a culture can be asked what they think are the important values, central beliefs, or common practices in the culture. Some of these responses would have high levels of agreement in the collective (e.g., most Americans believe that American culture values freedom), but others would have lower levels of agreement (e.g., only some Americans believe that American culture values the right to bear arms). We refer to the extent of agreement in cultural members' assumptions about the culture as *intersubjective consensus*—the higher the intersubjective consensus, the more widely shared the assumption is among individuals in a cultural collective.

When people in a culture agree on what symbolic elements are important to the culture, these elements become the core elements of the culture. For example, the right to vote is a central symbolic element of America's political culture, not necessarily because most Americans vote or want to vote in the elections, but because most Americans know that American culture values the right to vote. When a cultural element is collectively believed to be important to a culture, it has high *intersubjective importance* and is a defining element of the particular culture.

In short, the construct of intersubjective consensus is so labeled to emphasize the theoretical assumption that any important cultural characteristics ought to be shared among people as their beliefs about the culture. For an idea to characterize a culture, most members of the culture should agree on this characterization, thus creating a level of consensus among the cultural collective. In this chapter, we first review empirical evidence for the utility of this approach for explaining a wide

spectrum of cultural processes, ranging from intrapersonal cognition to interpersonal, cultural, multicultural and intercultural processes. Next, we will discuss the broader theoretical implications of this approach for understanding culture and psychology.

EMPIRICAL EVIDENCE

INTRAPERSONAL PROCESSES: THE CASE OF CAUSAL ATTRIBUTION

Norms can influence intrapersonal cognition. In a classic study by Sherif (1936), participants conformed to the apparent views held by others, even when it was obvious that the others had no better information than the participants themselves. In the course of an experiment, participants made visual judgments under the influence of the autokinetic effect. With repetitions, the judgments of a group converged, and a group consensus emerged; that is, participants jointly developed a perceptual norm that did not exist before, and they adhered to the group norm even when they subsequently made judgments in private.

A robust finding in culture and psychology is that Chinese tend to explain ambiguous social events in terms of situational causes, whereas Americans tend to attribute the causes of the same events to factors internal to the actors (Morris & Peng, 1994). A recent study (Zou et al., 2008, Study 2) showed that cultural variations in intersubjective norms mediate this cultural difference in causal attribution. In this study, American and Chinese participants indicated how much they agreed with the idea that personal dispositions determined human behaviors and the idea that situational forces determined human behaviors. No cultural differences were found in the extent of agreement with these ideas. That is, there were no cultural differences in the statistical norms pertinent to these two causal beliefs. However, when the investigators asked these participants what they believed were the ways Americans and Chinese would respond to the same belief ideas, both American and Chinese participants held that Americans would agree with dispositionism more and situationism less than would Chinese.

Furthermore, when asked to explain an ambiguous event, the Americans made more dispositional attributions than did the Chinese, a result consistent with previous findings. More importantly, only cultural variations in perceived in-group norms significantly mediated cultural differences in causal attribution. That is, Americans made more dispositional attributions because they shared the assumption that Americans believed in dispositionism, and Chinese made fewer dispositional attributions because they shared the assumption that Chinese believed less in dispositionism.

INTERPERSONAL PROCESSES: THE CASE OF PERSUASIVE COMMUNICATION

Similar results were found in people's responses to persuasive communication. Past studies (Cialdini, 1993) showed that consistency and consensus information can induce compliance with a request. People are more likely to comply with a request when they have consistently done so before and when complying is the consensual response of their peers. Prior research found that the consistency effect is stronger and the consensual effect is weaker among American participants than among Polish participants (Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999).

In the Cialdini et al. (1999) study, American and Polish participants imagined that they were approached by a representative from a soft drink company and were asked to participate in a marketing research survey. The participants were asked to rate their likelihood of complying with the request. Half of the participants received consistency information. These participants were asked to indicate their likelihood of compliance considering they had (a) always or (b) never agreed to complete similar surveys in the past. The remaining participants were provided with consensus information; they indicated their compliance likelihood when considering (a) all or (b) none of their peers had complied with similar requests in the past. A bigger difference between (a) and (b)

in the former and the latter conditions indicated a stronger response to consistency and consensus information, respectively.

As mentioned, the consistency effect was stronger and the consensus effect was weaker among American participants than among Polish participants. Cialdini et al. (1999) attributed this cultural difference to Americans' individualism and Poles' collectivism. They indeed found that the participants' responses on an individualism-collectivism measure mediated the cultural difference in the consistency and consensus effects. A closer examination of the individualism-collectivism scale used in the study saw it measuring both the participants' personal endorsement of individualism and collectivism, and the level of individualism-collectivism they attributed to their in-group culture.

A re-analysis of the data (Zou et al., 2008, Study 1) found that as in the attribution study described above, the two cultural groups did not differ in how much they personally endorsed individualism and collectivism (i.e., no differences in the statistical norms). Instead, the two groups differed significantly in the intersubjective norms—the Polish participants attributed a higher level of collectivism and a lower level of individualism to the Poles than the American participants attributed to the Americans. More important, only cultural variations in perceived in-group norms significantly mediated the cultural difference in responses to persuasive communication—Poles displayed a stronger consensus effect because they shared the assumption that Poles were collectivistic, and Americans displayed a stronger consistency effect because they assumed that Americans were individualistic. In short, the results indicate that the influence of intersubjective norms can trump that of statistical norms in both intrapersonal cognitions and interpersonal behaviors.

CULTURAL PROCESSES: THE CASE OF CULTURAL IDENTIFICATION

Past research has shown that endorsement of culturally important values is related to cultural identification (Bernard, Gebauer, & Maio, 2006; Feather, 1994; Jetten, Postmes, & McAuliffe, 2002). Some critical questions are: What types of culturally important values are relevant to cultural identification? Are they values that are most strongly endorsed by members of a culture (values that are statistically normative)? Or are they values that most members of a culture assume to be widely shared in the culture (values that are intersubjectively normative)? We have conducted a series of studies (Wan, Chiu, Tam, et al., 2007) to demonstrate the unique utility of the intersubjective consensus approach in identifying the core values of a culture and the role that these values play in predicting cultural identification. The results consistently show that endorsement of intersubjectively normative values is a better predictor of cultural identification than endorsement of statistically normative values.

Before evaluating the centrality of intersubjectively normative and statistically normative values in cultural identification, we conducted a study (Wan, Chiu, Tam, et al., 2007, Study 1) to establish that the intersubjectively normative values are not identical to the statistically normative values in a culture. If there is perfect overlap between these two sets of values, then there is no point in examining the unique effect of intersubjectively normative values. In this study, we gave a list of nine individualistic and nine collectivistic values to European American and Hong Kong Chinese participants and asked them to choose the 10 values that were most important to themselves. We used this measure to identify the statistically normative values in European American and Hong Kong Chinese cultures (values that the respondents as the pertinent cultural group considered to be most important to themselves). Next, participants in both cultural groups estimated the percentage of European Americans and the percentage of Hong Kong Chinese who would choose each of the 18 values as one of the 10 most important. We used this measure to identify the intersubjectively normative values in European American and Hong Kong Chinese cultures (values that the respondents generally perceived to be shared among members of the cultural group).

European American participants perceived that European Americans would endorse the individualistic values much more and the collectivistic values much less than would Hong Kong Chinese. This perception is consistent with the field's general assumption that European American culture

is more individualistic and less collectivistic than Hong Kong Chinese culture. Interestingly, the European American participants did *not* endorse individualistic values more frequently or collectivistic values less frequently than did the Hong Kong Chinese participants. Furthermore, the values that were endorsed more frequently by either group of participants (statistically normative values) only partially corroborated with the values that were perceived to differentiate European American and Hong Kong Chinese cultures (intersubjectively normative values).

In a second study (Wan, Chiu, Tam, et al., 2007, Study 2), undergraduate students rated the 56 Schwartz (1992) values on the importance of the values both to themselves and to an average student at their university. The former ratings indicate the actual importance of the values to the participants (the statistical norms), whereas the latter ratings indicate the participants' intersubjective assumptions of the importance of the values to the student culture (the intersubjective norms). Only 5 values were among the top 10 values in both respects. Some values (e.g., meaning in life) received high personal endorsement from the participants but were perceived as not very important to the university students. In contrast, some values that were seen to be very important to the university students (e.g., pleasure) were not highly endorsed by the participants themselves. Also, the correlation between the actual self-importance ratings of the 56 values and the perceived cultural importance ratings of the values was only .68. Thus, although there is a certain level of correspondence between the statistically normative values and the intersubjectively normative ones, the correspondence is hardly perfect, leaving room to investigate the unique contribution of the two types of normative values in cultural identification.

In addition to making the ratings just described, participants were asked to indicate their identification with the university's student culture. Then we computed the similarity of each participant's own personal value profile (a profile that depicts how important each of the 56 values was to the individual participant) to the statistical norm (a profile depicting the actual importance of each value to the group) and intersubjective norm (a profile depicting the perceived importance of each value to the group). The similarity between self-value endorsement and the intersubjective norm predicted cultural identification above and beyond the similarity between self-value endorsement and the statistical norm, but the reverse was not true. Thus, the more similar people's personal values are to the intersubjective norm, the more strongly they identify with the culture. This offers the first piece of evidence that relative to values that are statistically normative, values that are intersubjectively normative play a more important role in cultural identification.

A third study (Wan, Chiu, Tam, et al., 2007, Study 3) examined the connection between intersubjective norms and cultural identification from a developmental perspective. University undergraduate freshmen responded to the value and identification questionnaire used in the previous study twice, the first time at the beginning of their first semester, and the second time toward the end of the first semester. As in the previous study, we identified the values that were intersubjectively normative and those that were statistically normative at the beginning and the end of the semester. We then computed the participants' personal endorsement of the values at the two time points. We used hierarchical regressions to test whether the endorsement of the cultural values at the beginning of the semester predicted cultural identification at the end of the semester. First, cultural identification at the beginning of the semester did not predict changes in the endorsement of any of the cultural values identified, indicating that cultural identification had no effects on changes in value endorsement. More important, *only the endorsement of intersubjectively normative values* at the beginning of the semester predicted increased cultural identification over time.

To provide further evidence of the role of intersubjectively normative values in cultural identification, we manipulated the threat to the importance of values that were generally believed to be important to the in-group, and examined participants' identification with and favoritism for the group culture as a result of this threat (Wan, Chiu, Tam, et al., 2007, Study 4). In a pretest, we found that American undergraduate students *agreed* that "enjoying life" and "true friendship" were among the most important values to American culture, and "being modest" and "detachment" among the least important values. We label these as intersubjectively normative and non-normative values,

respectively. In the experiment, European American participants were asked to give a speech in which they argued either for or against the importance of the intersubjectively normative values, and either for or against the importance of the intersubjectively non-normative ones. We measured participants' identification with American culture both before and after the speech. Finally, participants after giving their speech were asked to evaluate the warmth and competence of a user of American English and a user of British English.

The results of the study showed that making the intersubjectively important American values salient resulted in increased identification with American culture—participants identified with American culture more strongly after giving a speech on the intersubjectively normative values. Furthermore, when the importance of intersubjectively normative American values was threatened, participants displayed favoritism for American culture as an identity affirmation strategy—participants who were asked to speak *against* the importance of the intersubjectively normative values rated the American English user to be warmer than the British English user.

Together, the results of the four studies showed that intersubjectively normative values play a more important role than statistically normative values in cultural identification. The closer the alignment between people's personal values and the intersubjective normative values in the culture, the more identified they are with the culture.

MULTICULTURAL PROCESSES: PRIORITIZATION OF IDENTITIES IN MULTICULTURAL CONTEXTS

Individuals with experiences in multiple cultures can claim membership to multiple cultures. For these individuals, the prioritization of multiple cultural identities is a salient issue (Hong, Wan, No, & Chiu, 2007). Extending the relationship between endorsement of intersubjectively normative values and cultural identification to a multicultural context, we posit that multicultural individuals hold assumptions about the relative importance of various values to the cultures they belong. For example, Chinese Americans in the U.S. would know what values are commonly perceived to be more (less) important to mainstream American culture than to Chinese culture. We further posit that bicultural individuals who endorse values that are generally perceived to be more important in Culture A than in Culture B would identify more strongly with Culture A than with Culture B. For example, Chinese Americans who endorse values that are widely perceived to be more important to Chinese culture than to mainstream American culture would identify with Chinese culture more strongly than they do American culture. Likewise, those Chinese Americans who endorse values that are widely perceived to be more important to mainstream American culture than to Chinese culture would identify with American culture more strongly than they do Chinese culture.

We tested this prediction in three studies using different samples (Wan, Chiu, Peng, & Tam, 2007). In the first study, the participants were undergraduate students from a university in Hong Kong. The study examined relative identification with the university's student culture and with Hong Kong culture. The second study was conducted among MBA students from a business school in China. This study examined relative identification with Chinese culture, the student culture of the university, and the culture of the business school. The third study used Singaporean Chinese students as participants. Instead of examining culture of organizations, as in the previous two studies, the third study examined relative identification with ethnic (Chinese) and national (Singaporean) cultures.

In all studies, participants rated the importance of the 56 Schwartz (1992) values on their importance to each of the target cultures by estimating how an average member of the culture would rate the values. Based on these importance ratings, we identified values that were more intersubjectively normative in one culture than in the comparison cultures. For example, in the study of Singaporean Chinese, we identified both values that the participants perceived to be more intersubjectively normative to Singaporean than to Chinese culture (e.g., equality, broad-mindedness, creativity) and values that the participants perceived to be more intersubjectively normative to Chinese than to Singaporean culture (e.g., respect for tradition, honoring of parents and elders, humility). We then correlated participants' self-endorsement of these values with their relative identification with the cultures.

The results of the three studies provided consistent support for our prediction. In the first study, the endorsement of values that are more intersubjectively normative in the university culture than Hong Kong culture was associated with stronger identification with the university culture than with Hong Kong culture. In the second study, the endorsement of values that were more intersubjectively normative in the university culture than in either the business school culture or Chinese culture was associated with stronger university identification than with either business school or Chinese identification. Finally, the third study found that the stronger the participants endorsed values that were more intersubjectively normative in Singaporean culture than in Chinese culture, the stronger their Singaporean identification relative to their Chinese identification.

An interesting point to note is that the relationship between endorsement of values intersubjectively perceived to differentiate two cultures and relative identification with the two cultures is not necessarily symmetric. For example, whereas the values that were intersubjectively perceived to be more normative to Singaporean than to Chinese culture were related to relative identification with the cultures, the values that were intersubjectively perceived to be more normative to Chinese than to Singaporean culture were not. This asymmetry might be a result of one culture being a more salient anchor in cultural identity concerns than the other. Nonetheless, the findings of the three studies showed that intersubjective norms can also play an important role in predicting prioritization of cultural identities in a multicultural context.

INTERCULTURAL PROCESSES: CULTURAL COMPETENCE AND INTERCULTURAL RELATIONS

Knowledge of intersubjective norms in a culture enables individuals to behave competently when interacting with others in the culture. For example, one study (see Chiu & Hong, 2005) asked Chinese Americans and European Americans to report how much they were motivated by gains or loss aversion, and estimated how their own group and the other group would respond to the same measure. Chinese Americans reported that they were more motivated by loss aversion than by gains, whereas European Americans reported that they were more motivated by gains than by loss aversion. When asked to estimate the responses of the two ethnic groups, Chinese Americans (who were immersed in both Chinese and European American cultures) accurately estimated the motivational predilections of both ethnic groups. In contrast, European Americans were accurate in estimating the motivational preference of European Americans alone. In the next study, new samples of Chinese Americans and European Americans were invited to write a message to persuade a customer to buy a life insurance policy. The target customer was either a Chinese or European American. Chinese American participants included more loss-aversion arguments and fewer gain appeals in the message when the customer was a Chinese rather than a European American. European American participants included more gain appeals than loss-aversion arguments in the message, irrespective of the customer's cultural identity.

Knowledge of the intersubjective norms in a foreign culture also facilitates cultural adjustment and socially competent interactions in the culture. In a study of immigrants' adaptation to Israel, Kurman and Ronen-Eilon (2004) showed that immigrants who lacked knowledge of the normative beliefs in Israel tended to have poor sociocultural adaptation. By comparison, actual discrepancy between immigrants' personal beliefs and Israelis' actual beliefs was not a good predictor of the immigrants' sociocultural adaptation. Similar findings were obtained in a study of the cultural competence of Mainland Chinese students studying in Hong Kong (Li & Hong, 2001). Students with more refined knowledge of the normative values in Hong Kong culture reported more socially competent interactions (in terms of personal goal achievements and relationship quality) with Hong Kong Chinese. Finally, Mainland Chinese, who endorse beliefs that are normatively important to Hong Kong Chinese, tend to have favorable attitudes toward Hong Kong Chinese (Guan et al., in press).

We have presented evidence that illustrates the role of intersubjective norms in a variety of cultural phenomena including culture and intrapersonal cognition, culture and persuasion, cultural identification, prioritization of cultural identities, cultural competence, and intercultural relations.

In the next section, we will discuss the broader theoretical implications of the intersubjective consensus approach for culture and psychology.

BROADER THEORETICAL IMPLICATIONS

CULTURAL SELVES: CONCEPTUAL AND EMPIRICAL CHALLENGES

The intersubjective consensus approach to the study of culture complements an existing common approach in the field, which seeks to understand culture as the internalized values of its members. A large portion of the extant research in cross-cultural and cultural psychology has examined culture via cultural members' self-characteristics. The focus of the research is on what people in a culture actually do, how they actually think, and what values and beliefs they actually hold. In one of the early studies that catapulted the study of culture and psychology to center stage, Hofstede (1980) derived four cultural dimensions from the responses of IBM workers from over 60 countries on what they personally valued. Among the four dimensions, the dimension of individualism-collectivism caught the attention of the field and subsequently became the most studied cultural dimension (Oyserman, Coon, & Kemmelmeier, 2002).

Following the lead of Hofstede's work, most of the studies on individualism-collectivism have assessed the cultural orientation of members of a culture via their personal characteristics. Direct measures of individualism and collectivism orientations have asked cultural members' personal endorsement of statements, values, and engagement in behaviors representing the two orientations (Matsumoto, Weissman, Preston, Brown, & Kupperbusch, 1997; Realo, Allik, & Vadi, 1997; Triandis & Gelfand, 1998). Other studies have focused on specific personal domains on which cultures with different levels of individualism and collectivism are expected to differ. For example, people from highly individualistic cultures are expected to display more prevalent independent and private self-construals (Cousins, 1989; Triandis, 1989). All these personal psychological characteristics of the individuals are assumed to be reflections of cultural characteristics. Based on these personal characteristics displayed by cultural members, a culture is considered individualistic if most people in the culture see independence and autonomy as very important to themselves and display the prevalent independent self-construal.

The cultural-self approach is based on several strong assumptions. First, it is assumed that cultural elements are largely internalized as part of cultural members' cultural selves and, thus, people's reports about their personal thoughts and preferences would be valid reflections of the culture in which they are immersed. As culture provides an environment to support a particular way of being, people who are exposed to the same cultural environments would adopt similar values, beliefs, and practices appropriate to the culture, leading to systematic and culturally meaningful self-characteristics observed in members of the culture (Markus & Hamedani, 2007). However, not all elements of a culture are as easily internalized, and people do differ in the extent to which they internalize a culture as part of the self (Chirkov, Ryan, & Willness, 2005).

Second, the statistical aggregates of a sample of cultural informants on certain psychological measures (e.g., measures of individualism or independent self-construal) can be used to characterize cultural similarities and differences on these measures. However, this approach of using the cultural self as an indicator of culture has met some challenges in recent years, especially in the use of self-reports as a measurement tool. For example, Peng, Nisbett, and Wong (1997) found that cultural values as measured by American and Chinese participants' self-reports of personal value endorsement did not match cultural experts' perceptions of the cultures beyond chance agreement. Similarly, Oyserman et al. (2002) found in their meta-analysis that the field's long-held belief of cultural differences in individualism-collectivism does not consistently hold across comparison groups. Whereas cross-cultural and cultural psychologists consider European Americans to be more individualistic than African Americans and Latinos, and less collectivistic than Japanese and Koreans, the meta-analysis results showed that empirically the differences are not reliably there.

Furthermore, to objectively characterize a culture, the cultural-self approach requires systematic assessment of the psychological characteristics of representative samples of cultural informants. Elements that are assumed to characterize a certain culture should be observed in most of the people in a representative sample of the culture. As an alternative to using representative random samples, certain subgroups in a population can be used because they arguably form reasonable representatives of the culture. For example, Schwartz (1992) has used schoolteachers in place of representative random samples in his study of cultural values because as the main channel of cultural transmission, teachers should be one of the groups in a culture that embodies the culture's central values the most. The use of representative samples, however, forms only the minority of the extant research. Instead, most studies that seek to describe cultural characteristics via cultural members' self have employed samples that could not be representative of the culture as a whole. For example, much research in the field has been based on responses from university students (e.g., Bond, 1988; McCrae, Costa, del Pilar, Rolland, & Parker, 1998; Schmitt & Allik, 2005; Triandis, 1995).

Finally, most people have multiple social group memberships. When participants belong simultaneously to multiple subgroups within a culture, it becomes difficult to judge whether their self-report responses reflect the influence of the culture of interest or the culture of the subgroups to which the participants belong. People in a non-representative cultural sample are likely to belong simultaneously to the target culture and to one or more common subgroups within the culture. For example, European American students from a university in the midwestern U.S. are part of the mainstream American culture. At the same time, they are also part of the subculture of the Midwest, the subculture of the particular university they attend and, if they are all psychology majors, the subculture of psychology students. These multiple group memberships provide multiple sources of influence on people's self-characteristics.

CULTURAL SELVES VERSUS CONSENSUAL CULTURAL ASSUMPTIONS

The intersubjective consensus approach addresses the conceptual and methodological issues confronting the cultural-self approach by distinguishing cultural assumptions from the cultural self. When cultural characteristics are measured via people's self-characteristics, the result is a reflection of cultural members' *cultural self*, which is derived from the part of culture that is internalized. When cultural characteristics are measured via people's consensual beliefs about their culture, the result is a reflection of cultural members' *consensual cultural assumptions*. Culture as measured by the former would be exactly the same as the latter if all cultural characteristics are internalized as personal characteristics residing within cultural members' selves. However, when cultural characteristics are not completely internalized, consensual cultural assumptions and cultural self form somewhat different aspects of a culture, and the characteristics that constitute the cultural self and those that constitute consensual cultural assumptions do not completely overlap.

Indeed, as the evidence reviewed earlier shows, the statistical norms based on the statistical aggregates of cultural members' self-reported values and beliefs often diverge from the intersubjective assumptions cultural members hold about their in-group members' values and beliefs. More recent research has also found discrepancies between people's actual self-endorsement of values and their perceptions of the importance of the values in their culture (Fischer, 2006; Wan, Chiu, Tam, et al., 2007). Similarly, people's perceptions of the personality traits prevalent in their culture have been found to be quite different from the actual self-rated personality traits that they themselves possess (Terracciano et al., 2005).

EXPLAINING CROSS-CULTURAL DIFFERENCES

As mentioned, researchers often failed to obtain the cultural differences in self-reported values and self-construal that experts in the field hypothesize to be there. For example, experts in culture and psychology expect Asian cultures to be more collectivistic than American culture. However, Asians

do not consistently endorse collectivist values more than do Americans. The possible explanations for this discrepancy are, first, psychologists and other cultural experts are seriously biased in their perceptions of the cultures; second, people's responses on self-report rating scales do not accurately reflect the true self; third, both measures of cultural members' selves and cultural experts' perceptions are somewhat accurate, but they give different conclusions because they are measuring different parts of a culture.

If the first explanation is correct, one should ask the question why the "experts," who are supposed to have extensive knowledge of the cultures, are so biased that they come to view the cultures in such a different light as compared to the actual lives lived by people in the cultures. If the second explanation is correct, then what is wrong with the self-report measures? Some researchers have suggested that people's self-reports are social comparison outcomes, as the respondents make references to others in their cultural in-group when they answer questions about themselves (Heine, Lehman, Peng, & Greenholtz, 2002; Peng et al., 1997). Thus, when people report the self as being individualistic, it means that they perceive themselves as more individualistic than others in the cultural in-group. People's perceptions of other members of the cultural group then become the noise in the quest for the true characterization of a culture.

From the perspective of the intersubjective consensus approach, both the cultural experts' stereotypes and the social references that cultural members use in self-reports reflect a consensual understanding of the culture. Although this understanding of the culture may not mirror the statistical norms of the culture, individuals' judgments and behaviors may depend on the intersubjective norms instead of the statistical norms. As shown in our studies, although cultures may not differ in self-endorsement of individualist and collectivist values and causal beliefs, expected cultural differences are consistently found in people's cultural assumptions about in-group members' values and beliefs. Furthermore, when the influence of statistical norms is pitted against the influence of intersubjective norms, oftentimes the influence of intersubjective norms can trump that of statistical norms.

If cultural variations in intersubjective norms mediate cultural variations in behaviors, why do cultural psychologists often attribute cultural variations in behaviors to the cultural self? For example, if Asians do not endorse collectivist values more than do Americans, but display more collectivist behaviors out of conformity to the collectivist intersubjective norms in Asia, why do cultural psychologists tend to attribute a collectivist self to the Asians and explain Asians' collectivist behaviors in terms of Asians' "collectivist self"?

Research on pluralistic ignorance (Prentice & Miller, 1993) provides a possible answer to this question. College freshmen engage in excessive drinking out of conformity to the intersubjective norm. Nonetheless, observers may erroneously attribute the students' behaviors to their pro-drinking attitude. Such misattribution simultaneously leads to the illusory perceptions that college students have a favorable attitude toward excessive drinking and that this shared attitude causes excessive drinking among the students. The prevalence of collectivist behaviors in Asian contexts can produce a similar perceptual bias, leading to the perceptions that Asians have a collectivist self, and that the collectivist self causes Asians' collectivist behaviors. This attribution bias has been referred to as the cultural attribution fallacy (Matsumoto & Yoo, 2006).

ALTERNATIVE CONSTRUCTIONS OF CULTURE

The intersubjective consensus approach characterizes culture based on people's shared cultural assumptions instead of people's self-characteristics. This approach assumes that subgroups in a society may construct different shared assumptions about a culture. For instance, a study on Polynesian descent (Maori) and European descent (Pakeha) New Zealanders' cultural assumptions (Liu, Wilson, McClure, & Higgins, 1999) has shown that whereas both ethnic groups perceived the historical event of the Treaty of Waitangi as highly important in defining New Zealand, they differed in their specific understanding of the treaty, such as the motives of the treaty framers from the

two ethnic groups and the extent to which the treaty had been honored by the two ethnic groups. The Maori and Pakeha respondents also differed in other historical events that they considered as most important to New Zealand. Interestingly, even within the Maori ethnic group, the college student sample and the general public sample differed greatly in the understanding of important historical events. Such differences in understanding reflect the different slices of culture that the different subgroups in the same culture experience, which contribute to the formation of cultural assumptions specific to the subgroups.

The potentially different intersubjective cultural assumptions that different subgroups may hold do not undermine the importance of the intersubjective consensus approach in characterizing a culture. Researchers taking an intersubjective consensus approach can obtain a *valid* characterization of the national culture from the perspective of college students by questioning a sample of college students about their views of the national culture. Furthermore, the specific cultural assumptions shared in a certain subgroup can have nontrivial impact on the subgroup's behaviors. For this research, understanding how groups of people characterize a culture allows for the study of how the cultural experiences specific to the group give rise to the prevalent cultural assumptions in the group.

BEYOND THE CULTURAL SELF

The intersubjective consensus approach emphasizes that culture resides neither completely external of individuals nor completely in the self-characteristics of members of the culture. Part of culture resides in people's assumptions about the cultural milieu that they experience. By considering a new side of culture, new research questions emerge.

First, by separating cultural assumptions and cultural self, one can ask how closely these two aspects of culture correspond to each other. Second, researchers can examine how and when a cultural assumption becomes part of the cultural self. Based on self-determination theory, researchers have argued that people differ in the extent to which they internalize cultural ideas (Ryan & Deci, 2003) and that certain aspects of culture are harder to internalize, especially when these aspects are against people's need for autonomy (Chirkov et al., 2005). However, it is not clear how and when culture, in the form of an intersubjective cultural assumption, becomes part of people's cultural selves. Finally, given that cultural assumptions and cultural self are distinct parts of a culture, it is pertinent to ask when an individual's psychological processes would follow intersubjective assumptions in the culture and when they would follow internalized values and beliefs. We have shown that intersubjective norms (based on consensual cultural assumptions) can be more predictive of psychological responses than are statistical norms (cultural selves). However, we do not claim that intersubjective norms always have a closer link to individual psychology than do statistical norms. In fact, when a psychological response is highly dependent on people's expression of self-characteristics instead of social conformity, one might speculate that culture as characterized by cultural members' cultural selves would be more predictive of the response than culture as characterized by consensual cultural assumptions.

In summary, the intersubjective consensus approach complements the commonly used cultural-self approach in characterizing culture. We do not consider either approach to be generally better than the other. Instead, the two approaches simply describe different, albeit somewhat overlapping, slices of the same culture. Considering the intersubjective norms in addition to statistical norms in a culture can provide a more complete understanding of the culture.

CONCLUDING REMARKS

In this chapter, we have discussed the intersubjective consensus approach to the study of culture. This approach focuses on the part of culture that exists as shared assumptions about the culture among members of a cultural collective. We consider this approach to be an alternative approach to the study of culture that complements existing research on cultural members' cultural selves.

While the cultural characteristics identified through intersubjective consensus and through cultural self might overlap to a certain extent, as both are characterizing the same culture, there would still be distinct elements of a culture that exist as people's intersubjective assumptions about the culture instead of internalized self-characteristics. The evidence presented in the present chapter illustrates how the intersubjective consensus approach to culture can deepen our understanding of a wide variety of culture-related processes. We hope that this approach will redirect researchers' attention to culture as an intersubjective reality.

REFERENCES

- Asch, S. E. (1955). Opinions and social pressure. *Scientific American*, 193, 33–35.
- Bernard, M. M., Gebauer, J. E., & Maio, G. R. (2006). Cultural estrangement: The role of personal and societal value discrepancies. *Personality and Social Psychology Bulletin*, 32, 78–92.
- Bond, M. H. (1988). Finding universal dimensions of individual variation in multicultural studies of values: The Rokeach and Chinese value surveys. *Journal of Personality and Social Psychology*, 55, 1009–1015.
- Chiu, C.-y., & Hong, Y. (2005). Cultural competence: Dynamic processes. In A. Elliot & C. S. Dweck (Eds.), *Handbook of motivation and competence* (pp. 489–505). New York: Guilford.
- Chirkov, V. I., Ryan, R. M., & Willness, C. (2005). Cultural context and psychological needs in Canada and Brazil: Testing a self-determination approach to the internalization of cultural practices, identity, and well-being. *Journal of Cross-Cultural Psychology*, 36, 423–443.
- Cialdini, R. B. (1993). *Influence: The psychology of persuasion*. New York: HarperCollins.
- Cialdini, R. B., Wosinska, W., Barrett, D. W., Butner, J., & Gornik-Durose, M. (1999). Compliance with a request in two cultures: The differential influence of social proof and commitment/consistency on collectivists and individualists. *Personality and Social Psychology Bulletin*, 25, 1242–1253.
- Cousins, S. D. (1989). Culture and self-perception in Japan and the United States. *Journal of Personality and Social Psychology*, 56, 124–131.
- Feather, N. T. (1994). Values and national identification: Australian evidence. *Australian Journal of Psychology*, 46, 35–40.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fischer, R. (2006). Congruence and functions of personal and cultural values: Do my values reflect my culture's values? *Personality and Social Psychology Bulletin*, 32, 1419–1431.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Guan, Y., Bond, M. H., Huang, Z., Zhang, Z., Deng, H., Hu, T., & Gao, H. (in press). The role of personal endorsement of out-group members' distinctive values and need for cognitive closure in attitude towards the out-group. *Asian Journal of Social Psychology*.
- Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality & Social Psychology*, 82, 903–918.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hong, Y., Wan, C., No, S., & Chiu, C. (2007). Multicultural identities. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 323–345). New York: Guilford.
- Jetten, J., Postmes, T., & McAuliffe, B. J. (2002). "We're all individuals": Group norms of individualism and collectivism, levels of identification and identity threat. *European Journal of Social Psychology*, 32, 189–207.
- Keesing, R. M. (1981). Theories of culture. In R. W. Casson (Ed.), *Language, culture and cognition: Anthropological perspectives* (pp. 42–66). New York: Macmillan.
- Kurman, J., & Ronen-Eilon, C. (2004). Lack of knowledge of a culture's social axioms and adaptation difficulties among immigrants. *Journal of Cross-Cultural Psychology*, 35, 192–208.
- Li, Q., & Hong, Y.-y. (2001). Intergroup perceptual accuracy predicts real-life intergroup interactions. *Group Processes and Intergroup Relations*, 4, 341–354.
- Liu, J. H., Wilson, M. S., McClure, J., & Higgins, T. R. (1999). Social identity and the perception of history: Cultural representations of Aotearoa/New Zealand. *European Journal of Social Psychology*, 29, 1021–1047.

- Markus, H. R., & Hamedani, M. G. (2007). Sociocultural psychology: The dynamic interdependence among self systems and social systems. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 3–39). New York: Guilford.
- Matsumoto, D., Weissman, M. D., Preston, K., Brown, B. R., & Kupperbusch, C. (1997). Context-specific measurement of individualism-collectivism on the individual level: The individualism-collectivism interpersonal assessment inventory. *Journal of Cross-Cultural Psychology*, 28, 743–767.
- Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research. *Perspectives on Psychological Science*, 1, 234–250.
- McCrae, R. R., Costa, P. T., Jr., del Pilar, G. H., Rolland, J.-P., Parker, W. D. (1998). Cross-cultural assessment of the five-factor model: The revised NEO personality inventory. *Journal of Cross-Cultural Psychology*, 29, 171–188.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, 67, 949–971.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128, 3–72.
- Pelto, P. J., & Pelto, G. H. (1975). Intra-cultural diversity: Some theoretical issues. *American Ethnologist*, 2, 1–18.
- Peng, K., Nisbett, R. E., & Wong, N. Y. C. (1997). Validity problems comparing values across cultures and possible solutions. *Psychological Methods*, 2, 329–344.
- Prentice, D. A., & Miller, D. T. (1993). Pluralistic ignorance and alcohol use on campus: Some consequences of misperceiving the social norm. *Journal of Personality and Social Psychology*, 64, 243–256.
- Realo, A., Allik, J., & Vadi, M. (1997). The hierarchical structure of collectivism. *Journal of Research in Personality*, 31, 93–116.
- Reno, R. R., Cialdini, R. B., & Kallgren, C. A. (1993). The transsituational influence of social norms. *Journal of Personality and Social Psychology*, 64, 104–112.
- Roberts, J. M. (1964). The self-management of cultures. In W. H. Goodenough (Ed.), *Explorations in cultural anthropology* (pp. 433–454). New York: McGraw-Hill.
- Romney, A. K., Boyd, J. P., Moore, C. C., Batchelder, W. H., & Brazill, T. J. (1996). Culture as shared cognitive representations. *Proceedings of the National Academy of Sciences*, 93, 4699–4705.
- Ryan, R. M., & Deci, E. L. (2003). On assimilating identities to the self: A self-determination theory perspective on internalization and integrity within cultures. In M. R. Leary & L. P. Tangney (Eds.), *Handbook of self and identity* (pp. 253–272). New York: Guilford.
- Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg self-esteem scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology*, 89, 623–642.
- Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, 18, 429–434.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York: Academic Press.
- Sherif, M. (1936). *The psychology of social norms*. New York: HarperCollins.
- Terracciano, A., Abbel-Khalek, A. M., Ádám, N., Adamovová, L., Ahn, C.-k., Ahn, H.-n., et al. (2005, October 7). National character does not reflect mean personality trait levels in 49 cultures. *Science*, 310, 96–100.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Wan, C., Chiu, C., Tam, K., Lee, V. S., Lau, I. Y., & Peng, S. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology*, 92, 337–354.
- Wan, C., Chiu, C., Peng, S., & Tam, K. (2007). Measuring cultures through intersubjective cultural norms: Implications for predicting relative identification with two or more cultures. *Journal of Cross-Cultural Psychology*, 38, 213–226.
- Zou, X., Tam, K-P., Morris, M. W., Lee, S-L., Lau, I. Y-M., & Chiu, C-y. (2008). *Unpacking influences of culture on social judgments: Expressing different selves or conforming to different in-groups?* Manuscript under review.

5 Culture as a Vehicle for Studying Individual Differences

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There are many goals of cultural psychology. Research with a focus on culture itself is concerned with thought processes within members of a particular culture and how those thought processes are similar and different between cultures. For this research, culture is a crucial variable because culture itself is the object of study. For example, a cultural psychologist may want to identify psychological constructs that provide evidence of cultural membership or cultural differences that correlate with psychological ones. Cultures are knowledge traditions. These traditions vary between countries but also within countries. As such, an individual within the same country may be exposed to multiple cultures.* Related work has explored how bicultural individuals are able to maintain distinct cultural identities that each have a unique influence on psychological processing (Chao, Chen, Roisman, & Hong, 2007).

A second goal of cultural psychology is to provide a method for exploring individual differences in psychological processing. That is, cultural psychology provides a window into individual differences in psychological processing that may be hard to observe when studying individuals from only a single culture. To be clear, this aim is very different from other subfields in psychology. Much of psychology (and particularly cognitive psychology) focuses on typical behavior. Data are described by measures of central tendency. Variability is treated as a nuisance, and most experimental methods are aimed at reducing the amount of variability in performance across individuals. This methodology is consistent with the desire to understand the universal functions computed by the mind. Psychology typically assumes that there is an underlying set of cognitive mechanisms common across people. This assumption enables psychologists to run studies on a restricted population (e.g., college students taking introductory psychology), but to generalize the results to all people.

Pervasive cultural differences in cognitive processing call into question the assumption that the phenomena explored with Western college students really do reflect the way that people in general will act in the same situation (e.g., Henrich et al., 2005; Medin, Lynch, Coley, & Atran, 1997; Peng & Nisbett, 1999). Observed cultural differences suggest that the psychological variables causing the behavior of Western college students may be far from universal. One difficulty with studying individual differences within a culture is that the members of a culture often display a variety of differences that lead to variability in psychological measurements, and it is hard to determine the sources of this variability. Exploring differences in psychological performance across cultures, however, provides two (or more) groups of people who display reasonably stable differences in performance within groups. In this way, cultural differences can be used as a proxy for studying individual differences in behavior. Research motivated from this perspective focuses on ways to eliminate culture as an explanatory variable by finding other individual differences that explain cultural differences in performance. That is the approach that we have taken to our research. To be clear, we argue that cultural knowledge creates patterns of individual differences that reliably influence performance.

* Following the conventions of experimental research on culture, we will report much work of our own and others that use country as a proxy for culture. That does not mean that researchers in this tradition believe that country and culture are identical, but only that country is an easily identifiable demographic variable that correlates with cultural differences of interest (Lehman, Chiu, & Schaller, 2004).

In this chapter, we begin by discussing a range of influences that culture can have on cognitive performance. Then, we focus on motivational variables that affect cognitive processing and demonstrate how these variables could ultimately help us to understand both within-culture and between-culture variation in performance on a variety of tasks. This work serves as a case study for the way cultural psychology can provide a framework for better understanding individual differences in behavior.

HOW CAN CULTURE AFFECT COGNITION?

Culture has a number of avenues for influencing psychological processing by members of that culture. In this section, we briefly present some of these key dimensions along which culture can influence cognition. In subsequent sections, we discuss these dimensions in more detail.

Perhaps the most obvious influence is through language and communication. There are two broad classes of linguistic influences on a person's psychology. First, cultures have concepts that they habitually discuss. These forms of cultural expertise are transmitted to members of the culture and may thus have an important influence on their reasoning processes (Latané, 1996). Second, languages themselves differ in the information that they emphasize. While it has been difficult to provide evidence for the strongest claims about the linguistic determinants of thought, there does seem to be clear evidence that the language that people speak affects some aspects of the way that they think (e.g., Gentner & Goldin-Meadow, 2003; Gumperz & Levinson, 1996).

A second influence of culture on cognition is that it suggests strategies for solving problems. It is clear that humans have a more elaborate system of culture than any other animal on earth. Culture permits humans to adapt to the information available in the environment by allowing each new generation to learn the concepts that reflect the current state of the world and to benefit from the knowledge base of previous generations (Tomasello, 1999; Tomasello, Carpenter, Call, Behne, & Moll, 2005). Not only do humans learn basic concepts from members of their culture, but they also learn procedures for thinking and solving problems. Indeed, the extended period of schooling that we give our children in most modern societies is essentially an extended period of enculturation in which accepted means of thinking are transmitted to children. It is often difficult to see the influence of this extended schooling period on cognition, because (almost) every member of our culture goes through a similar set of experiences. At times, however, cross-cultural study can bring these processes to light.

The last influence of culture that we discuss in this chapter involves motivational states. For example, it is well known that cultures differ in the degree to which they emphasize the primacy of individuals or the centrality of the collective identity (e.g., Markus & Kitayama, 1991; Triandis, 2001). Specifically, on average, members of Western cultures tend to hold more individualist values, and members of East Asian cultures tend to hold more collectivist values.

It is not obvious on the surface how differences in the value placed on individual versus collective identity could influence cognitive processing. However, a number of potential motivational influences could be caused by this difference. In particular, the distinction between individual and collective identity is related to research on self-construal and fear of isolation, which may help to explain how cultural differences might influence the information people use in cognitive processing (Gardner, Gabriel, & Lee, 1999; Kim & Markman, 2006; Markus & Kitayama, 1991).

In the rest of this chapter, we discuss these three influences of culture on cognition. Of importance, in each case, cultural differences are correlated with other variables that ultimately drive differences in cognitive processing. Thus, for these aspects of cognitive processing, we can explain observed cultural differences in terms of these other psychological factors. Furthermore, these factors are also sources of variation in performance within a culture. For example, members of a culture that values individualism still vary in the degree to which they uphold individualistic values. For this reason, we refer to our explanatory variables as individual difference variables instead

of cultural variables. As such, differences first observed to vary across cultures provide us with a window into what individual differences may influence processing more broadly.

CULTURE, CONCEPTS, COMMUNICATION, AND LANGUAGE

One key source of variation across cultures is the set of concepts that form a basic part of the way people interact with their world. To some degree, members of cultures are influenced simply by the items that are present in their environments. Eskimos may not have 20 words for snow, but they will encounter more snow than will the Maya from Guatemala, and based on their experience, Eskimos are likely to be able to think about snow in ways that are different from the way the Maya do.

These general differences in experience can have a profound impact on people's basic reasoning abilities. For example, much research with American undergraduates has examined factors that affect whether they are likely to attribute a novel property to a category of objects based on knowledge of other categories to which it belongs (Osherson, Smith, Wilkie, Lopez, & Shafir, 1990). For example, American undergraduates tend to find the following inductive argument

Mice have antigen GPG in their blood.
Bears have antigen GPG in their blood.
Therefore, mammals have antigen GPG in their blood.

stronger than the argument

Mice have antigen GPG in their blood.
Rats have antigen GPG in their blood.
Therefore, mammals have antigen GPG in their blood.

Presumably, they find the first argument stronger, because mice and bears are a more diverse set of mammals than are mice and rats. This diversity increases people's confidence that all members of the more general category have this novel property.

Of importance, though, American undergraduates tend to know very little about animals and plants beyond these similarity relationships among them. If research explores reasoning abilities by people who know more about the categories, then a different pattern emerges (Medin & Atran, 2004; Proffitt, Coley, & Medin, 2000). For example, Proffitt et al. (2000) had Itza Mayans evaluate inductive arguments involving trees. This population knows quite a bit about trees (relative to American undergraduates). The Itza Mayans tended to reason on the basis of causal knowledge about the trees rather than on the basis of the similarity between the categories in the premise of the argument and the category in the conclusion. The results with the Maya paralleled other research of Americans who were tree experts (Medin et al., 1997). These results suggest that people use different cognitive strategies to reason about concepts for which they have expertise than about concepts for which they have little expertise. Because types of expertise may vary across cultures, there will also be cultural differences in the kinds of reasoning people perform, simply on the basis of the kinds of concepts that are familiar within that culture.

CATEGORIES AND LANGUAGE

Many cultural psychologists have recognized that communication plays a crucial role in the transmission of culture (Latané, 1996; Lau, Lee, & Chiu, 2004). This work starts with the insight that language is a critical tool that people use for communication, and consequently, it plays an important role in driving cultural representations (Lau et al., 2004). In this section, we are interested in influences of language on people's conceptual structures. This section focuses primarily on relationships between language and concepts, but clearly these factors are drivers of cultural differences in cognition, because members of subgroups who communicate will end up with more homogeneous conceptual structures, and these subgroups will ultimately form cultural groups.

The development of expertise in part requires the learner to acquire new linguistic labels and content of concepts. These labels also play a significant role in cognitive processing, and these labels are strongly influenced by cultural factors. This argument is subtle. First, giving a concept a particular label influences processing, because the label typically leads people to assume that the concept shares a set of deep properties, regardless of whether the person knows the properties shared by the objects. Medin and Ortony (1989) called this phenomenon *psychological essentialism*. Subsequent research has demonstrated that people believe that properties named by a label given to an object are more central to that object than are properties that are just listed as features (Gelman & Heyman, 1999; Yamauchi & Markman, 2000). For example, Gelman and Heyman (1999) found that children believe that the property “eats carrots” is more central to a person if they are described as a “carrot eater” than if they are described as someone who eats carrots.

Second, culture influences labeling because the labels given to objects differ cross-linguistically. Malt and colleagues have analyzed how sets of common objects (e.g., jars, containers, bottles and boxes) are labeled by native speakers of English, Spanish, and Chinese (Malt, Sloman, Gennari, Shi, & Wang, 1999; Malt, Sloman, & Gennari, 2003). They find that there are some broad similarities in the labels given to these objects, but there are also systematic differences in the labels given to objects in different languages. These differences do not reflect that some languages make finer distinctions among types of objects than do other languages, nor do they reflect differences in perceived similarity of the objects by native speakers of different languages. Instead, the label given to a particular object in a particular language is often contingent on labels given to other objects that support effective communication about these objects.

There are two types of influences that communication can have on the concepts held by members of a culture. The most obvious effect of language on culture is that people will communicate particular concepts to other members of that culture. In this way, members of a culture will come to share a background of basic ideas that are central for communicating with other members of the culture (Lau et al., 2004; Lehman et al., 2004). Latané and colleagues (Latané, 1996; Latané & L'Herrou, 1996) have demonstrated that if people communicate with only a limited number of others, then clusters of beliefs will form that are relatively insulated from the beliefs of groups that do not intercommunicate. Broadly, these beliefs can form the backdrop of culture.

In addition to the influences of language on the overt beliefs that they discuss, the act of communicating with others can affect the concepts of the individuals who communicate with each other. For example, Markman and Makin (1998) had pairs of people build Lego models collaboratively. One member of the pair had pictorial instructions describing how to build a model. The other member of the pair was allowed to touch the pieces to build the model. After building a series of models, each member was taken aside individually and was asked to sort the pieces into groups. The sorts done by people who collaborated on a model were more similar than were sorts done by people who worked with different partners, suggesting that the act of communicating about the pieces helped to synchronize category structures between individuals who communicated together.

Garrod and his colleagues obtained a similar result with people playing a computer game (Garrod & Anderson, 1987; Garrod & Doherty, 1994). Of importance, Garrod's work also demonstrates that when groups of individuals communicate together, they all ultimately end up with the same way of representing a domain. Groups of people who do not communicate with any individuals in common are likely to end up with quite different ways of communicating about the same situation. The groups in Garrod's studies are like members of a culture who communicate. Members of a particular cultural group will have concepts that are more similar than will members of different cultural groups.

This work implies that the label given to a particular object is determined by what will allow members of a culture to communicate effectively with each other. Once an object is given a particular label, though, it is assumed to share deep properties with other objects that have the same label. Thus, members of a culture communicate well together, and they also think more similarly to members of their own culture than to members of other cultures, because they share a common set of category structures (and also common causal knowledge about those categories).

OTHER LINGUISTIC EFFECTS

Communication between members of the same culture may have other subtle effects that emerge from the concepts that are typically part of a conversation. This issue is related to neo-Whorfian research on language (Gentner & Goldin-Meadow, 2003; Gumperz & Levinson, 1996; Lau et al., 2004). The original Sapir-Whorf hypothesis argued that the language people speak strongly determines the concepts they can represent. For example, proponents of this approach typically focus on grammatical differences among languages and the possibility that these differences influence the way that people represent the world.

Slobin (1996) argues that the basic question needs to be reformulated. Rather than seeking influences of language on thought, he argues that research should seek effects of speaking on thinking. That is, the core function of language is to communicate with others. To the degree that a language requires a speaker to focus on particular aspects of the world in order to properly formulate utterances, speakers of this language should attend to these aspects of the world routinely, because they might need to talk about them.

As an example of the influence of thinking for speaking, Slobin (1996) compared the way speakers of different languages described the narrative of a picture book. One picture showed a boy on the ground below a tree as if he had just fallen. A second showed a dog running. English speakers tend to describe the first by saying, “The boy fell out of the tree,” and the second as “The dog ran” (or perhaps “The dog was running”). Speakers of Turkish, however, must make a grammatical distinction between events in the past that they witnessed and those that they did not witness. Thus, the picture of the boy on the ground must be described using a grammatical form that roughly translates to “The boy (apparently) fell out of the tree.” This form is used because the speaker did not personally witness the falling in the picture. Slobin points out that speakers of English can express this uncertainty (using words like apparently), but they need not do it in order to form good sentences in English. Consequently, speakers of English are less sensitive to the distinction between witnessed and non-witnessed actions than are speakers of Turkish.

Once this question is formulated in terms of the actions involved in communication rather than about “language,” we can see that the effects of thinking for speaking extend beyond just the structure of the language that one speaks. If a culture promotes thinking about particular concepts or discussing particular issues, then this information will become a routine part of the way that members of that culture represent information and events.

For example, the classic *fundamental attribution error* in person perception refers to the tendency for people to attribute the actions of others to dispositions of the person, but to attribute their own actions to aspects of the circumstance (e.g., Lewin, 1935). Using a now classic method, Ross, Amabile, and Steinmetz (1977) demonstrated the existence of the fundamental attribution error using a quiz show paradigm. Students were randomly divided into pairs and assigned to the “questioner” role or to the “contestant” role. The questioners asked contestants questions either written by the questioners themselves (experimental group) or by others (control group). All students rated their knowledge and the knowledge of their partner after the question period. Contestants in the experimental group rated their partner as having more general knowledge relative to themselves, while contestants in the control group generated approximately equal ratings. Therefore, the contestants in the experimental group failed to take the assigned social roles into account. Their questioner partners only appeared more knowledgeable because they were able to make use of unique personal knowledge to formulate questions.

As mentioned above, however, much research suggests that East Asian cultures are relatively more collectivist than Western cultures (Triandis, 2001). Thus, there is a strong cultural force that encourages people to view themselves and others as connected to each other and to their environment. For example, members of East Asian cultures are more likely to describe themselves using interrelated descriptors than are members of Western cultures (Bond & Cheung, 1983). This habitual mode of thought and communication also influences attribution in social situations. Morris and Peng (1994)

found that Americans were more likely to give dispositional explanations of other people's behavior than were Chinese. Of interest, the tendency to give dispositional explanations was true for descriptions of social events but not physical events. That is, culture specifically affected people's representations of social events, not their ability to represent causal events more generally.

CULTURE AND COGNITIVE PROCESSES

A second crucial influence of culture on cognition comes from the transmission of cognitive strategies and methods for solving problems. The acquisition of some cognitive abilities requires only experience or immersion in the proper environment. Complex processes of human vision develop normally, provided that humans are exposed to normal visual environments, though some abilities are also enhanced by being able to interact with the environment physically. For example, the development of depth perception is facilitated by infants' self-directed movement through the environment (Campos et al., 2000). Similarly, language develops normally, without the need for explicit instruction, in children who are exposed to an environment of native speakers.

In contrast, many more complex cognitive abilities do require explicit instruction. Mathematics, for example, needs to be taught. Children need to be taught a number system and a method for counting, as well as procedures for carrying out basic arithmetic operations. Many aspects of what children are taught about these procedures influence the way that they think about number and quantity. For example, many Western languages (like English) use irregular number words for some of the numbers between ten and twenty (such as eleven and twelve) that do not make place-value transparent. Speakers of languages like Chinese, which have a system that respects place-value starting with the number for eleven, learn place-value more quickly than do speakers of languages like English (Fuson & Briars, 1990; Miura, Kim, Chang, & Okamoto, 1988).

Often, of course, we are so strongly socialized to particular methods for solving problems that we do not recognize that there are even other options for representing the domain and that our particular representation is an accident of our cultural training. The influence of culture on problem solving can extend all the way from modes of navigating the world to mechanisms for defining people's relationships to each other.

Hutchins (1983, 1995) provides an excellent example of this point in his extensive discussion of Micronesian navigation. He points out that modern societies cast the problem of navigation as one of finding a path through space, where space is represented from the two-dimensional overhead perspective used in maps. When boats are being navigated, the position of a boat is often fixed with reference to the position of known landmarks.

This way of thinking about navigation is so intuitive that it is difficult to conceive of another system that could be used successfully. Indeed as Hutchins points out, the difficulty of conceiving of an alternative hampered the ability of anthropologists to understand how native Micronesians navigated successfully between islands. Their navigation system has a number of features that seem strange from a modern perspective. For example, their navigation system relies on making use of fictitious islands that do not exist. Thus, unlike the modern system, in which we seek to create extremely accurate maps that detail the locations of every permanent object in the environment, the Micronesian system routinely made use of fictitious landmarks that nobody had seen and that nobody ever traveled to. This facet of the Micronesian navigation system was one (of many) that made no sense from the perspective of modern navigation practices.

In practice, Micronesian navigators need to travel among a set of islands. To accomplish this task, they represent journeys in terms of directions and travel times rather than routes. Each journey includes time periods associated with the presence of islands or evidence of islands. When there is no visible evidence of the departure or destination islands, the navigators keep track of time by tracking the position of other islands relative to the boat. For example, one time period may exist when birds from an island are visible but land is not, and another time period may exist once the island comes into view. It is not possible just to keep track of time using the passage of the sun,

because ocean currents and weather conditions can change the length of a journey substantially. However, the boat's passage of islands can be adjusted by the speed of the boat. Initially, a distant island might be ahead of the boat and to the left, and over time, it will move slowly from the front to the rear of the boat. The best islands to use for tracking time in this way are islands that are located on the line about halfway between the departure and destination islands. When a real island exists in about the right place, it is used as part of the navigation scheme. When there is no real island in this position, a fictitious one is created in that location and used to help navigate.

This navigation practice (and others, like using the positions of stars to guide the direction of the boat at night) is passed along among members of the culture. For Micronesian navigators, this way of structuring the navigation task is intuitive because this is the system they have learned. The system is strikingly counterintuitive to outsiders because the modern world has settled on a different system. What is crucial from our perspective, though, is that culture presents us with modes of thought that we use to address problems. These modes become central cognitive tools that we use across situations to the point that we may begin to think of them as fundamental aspects of our cognitive architecture. It is important to recognize, however, that these processes are often only one of many that we could have learned, and thus are more like computer programs that we run on our neural hardware than universal aspects of our cognitive endowment.

CULTURE AND MOTIVATION

The first two sections of this chapter focused on ways that culture can influence the content of people's mental representations. Content can be influenced directly by transmitting concepts and procedures through communication and instruction, and also more indirectly as a byproduct of the process of communicating with others. In this section, we examine ways that culture might promote motivational states that influence cognitive processing.

There has been an increasing appreciation that motivational states influence not only the likelihood that people will engage in a particular behavior, but also the cognitive processes that they bring to bear on that behavior (Maddox, Markman, & Baldwin, 2006). The relevance of this work for cultural differences is that cultures may promote different chronic motivational states of members. These chronic differences may then lead to cultural differences in the typical mode of cognitive processing engaged in by members of that culture (Hong & Chiu, 2001). Importantly, if a culturally distinct cognitive style results from chronic motivational states, then it should be possible to re-create the cognitive style in members of other cultures by inducing the corresponding motivational state.

One aspect of motivation that has been a source of growing research in culture and cognition examines a set of related motivational constructs surrounding self-construal and fear of isolation (Kim & Markman, 2006; Kühnen & Oyserman, 2002). As discussed earlier, cultures are well known to differ along the individualism-collectivism dimension (Triandis, 2001). That is, some cultures tend to promote the importance of individuals, individual expression, and individual freedom. Other cultures promote the value of the group and emphasize the role that members of the culture play within the societal fabric.

This broad focus has a number of possible influences on individual members of the culture. One is that it affects people's self-concept (Markus & Kitayama, 1991). An emphasis on individualism may promote a self-concept in which people think of themselves (and describe themselves) in terms of characteristics that are relatively independent of others. For example, a woman might describe herself as pretty, which would be an aspect of her self-concept that is relatively independent of others. In contrast, an emphasis on the role that one plays within society may promote a self-concept in which people think of themselves in terms of interdependent characteristics and roles within that society. For example, the same woman might describe herself as a daughter, which would relate her to her role within her family.

A person's self-concept can be measured in a number of ways. Researchers have used responses to open-ended questions, scales and sorting techniques (Hardin, Leong, & Bhatwat, 2004; Kuhn & McPartland, 1954; Singelis, 1994). For example, the Twenty Statements Task (Kuhn & McPartland, 1954) asks participants to respond with twenty answers to the question "Who am I?" Interdependent individuals respond using more statements that correspond to group membership or roles, whereas independent individuals produce more statements that correspond to individual attributes.

There are reliable group differences in self-concept (Cross & Madson, 1997; Markus & Kitayama, 1991). For one, members of relatively individualist cultures also tend to have more independent self-construals than do members of more collectivist cultures. For another, within any given culture, women tend to have relatively more interdependent self-construals than do men.

What makes these group differences in self-construal particularly interesting is that it is possible to manipulate a person's current self-construal and then examine the influence of that induced self-construal on performance in a task. These experimental procedures can establish a causal link between self-construal and cognition. For example, Gardner et al. (1999) primed a relatively independent or interdependent self-construal by having participants either read a story that emphasized individual or collective values or by having them do a word search that led them to focus on the words "I" and "me" in the independent condition or "we" and "our" in the interdependent condition. People's self-descriptions in the Twenty Statements Task (Kuhn & McPartland, 1954) suggested that the manipulation had the desired effect.

In these studies, Gardner et al. (1999) found that individuals from the U.S. and Hong Kong who were primed to have an independent self-construal endorsed individualist values more strongly than collectivist values. In contrast, those primed to have an interdependent self-construal endorsed collectivist values more strongly than individualist values. Participants also judged an individual who had performed a selfish act more harshly when they were primed with an interdependent self-construal than when they were primed with an independent self-construal. These findings are consistent with observed cultural differences. That is, priming self-construal produced the same outcomes as observed in cultures that promote individualism and collectivism while also causally linking self-construal differences with value differences.

One limitation of studies that explore factors like the endorsement of values is that more work needs to be done to understand the precise influences of self-construal on cognition. An emerging stream of work suggests that an interdependent self-construal makes people more sensitive to context than does an independent self-construal. For example, Kühnen and Oyserman (2002) gave people letters made of smaller letters like those shown in Figure 5.1. Research in perception suggests a global precedence for these figures, in which the large letters are identified more quickly than the small letters (Navon, 1977). Kühnen and Oyserman found that this was only true when individuals were primed with an interdependent self-construal. Those who were primed with an independent self-construal were faster to identify the small letters than the large ones. This finding is consistent with the assumption that the processing of people with an independent self-construal is relatively less influenced by context (here the context of the large letter) than is the processing of people with an interdependent self-construal.

These perceptual tasks suggest that self-construal influences contextual sensitivity. As another demonstration, we (Grimm & Markman, 2007) contrasted performance of a control group with those primed with an interdependent or an independent self-construal, using the "I/we" pronoun circling task (Gardner et al., 1999), on a variation of the classic Jones and Harris (1967) fundamental attribution error paradigm. University of Texas undergraduates read an essay they believed to be written by another subject. The essay was either supportive of University of Texas football coach Mack Brown or argued that he should no longer be employed by the university. Some subjects were told that the author of the essay chose the essay position taken, and others were told the essay position was assigned. After reading the essay, subjects rated the degree to which the position in the essay reflected dispositional and situational causes. Individuals in the control group and those primed with an independent self-construal rated dispositional causes higher than situational ones.

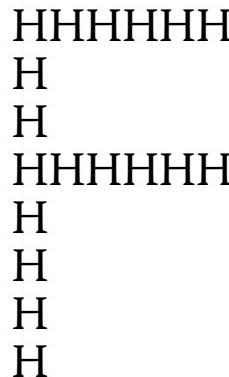


FIGURE 5.1 Example of a large letter (F) constructed from smaller letters (H).

The lack of a difference between these two groups is not surprising because the subjects were American undergraduates and therefore likely independent even without priming. In contrast, participants who had been primed with interdependent self-construals rated situational causes higher than dispositional ones.

To explore this phenomenon in more detail, we moved to a domain for which it was possible to isolate the information that people were using to perform the task (Kim, Grimm, & Markman, 2007). These studies explored how differences in self-construal affect people's ability to determine causality. Participants learned about the influence of potential causes on an observed effect by viewing observations of the cause and effect relationships. For example, the cover story in our studies told people that they were assessing the influence of a number of liquids on the growth of flowers (see Spellman, 1996). On each trial, one or more of these liquids was applied to the plant, and participants predicted whether the plant would bloom. Then, they were shown whether the plant actually bloomed.

When there is only one potential cause (i.e., only one liquid is poured on the plant), the more often the flower blooms in the presence of the liquid relative to the absence of the liquid, and the more likely is it that the liquid really is causing the flower to bloom (see Cheng, 1997; Cheng & Novick, 1992). Correspondingly, if the flower actually blooms less often in the presence of the liquid, then the liquid probably inhibits flower blooming. When there are multiple possible causes (i.e., multiple liquids), the task of determining whether a liquid promotes or inhibits flower blooming is more complicated, because it is necessary to take into account the presence or absence of the other liquids.

The design of these studies can be quite complicated, but the basic logic of this study was fairly straightforward (see Spellman, 1996, for details). One of the potential causes had a positive influence on plant growth, and the other had a negative influence. However, when the causes were presented during the study, there were more examples of the case where both liquids were presented simultaneously (which tended to lead to the flower blooming) than examples of one of the causes in the absence of the other. Because the presentation was set up this way, participants who only paid attention to whether a particular cause tended to be associated with the effect would conclude that both liquids tended to promote plant growth. Only if participants attended selectively to cases in which one cause appeared in the absence of the other could they successfully realize that one cause tended to promote the effect and the other tended to inhibit it.

This study provided further support for the claim that an interdependent self-construal is more likely to lead people to attend to contextual information in their environment than is an independent self-construal. People primed with an interdependent self-construal were able to recognize that the inhibitory cause actually inhibited the effect. That is, they were able to attend to the contextual information in the contingency judgment. In contrast, people primed with an independent self-

construal tended to judge that this inhibitory cause actually promoted the effect. That is, those with the independent self-construal tended not to attend to contextual information.

So far, the results we have presented suggest that motivational variables that are correlated with cultural differences lead to patterns of behavior in cognitive tasks that are like those observed in cross-cultural studies. Is it possible to explain differences in performance on a task with differences in a motivational variable? Kim and Markman (2006) addressed this question using the related motivational variable *fear of isolation* (Baumeister & Leary, 1995; Noelle-Neumann, 1984). Fear of isolation is the tendency to be anxious or afraid because of the prospect of being socially isolated from one's peer group. This fear of social isolation can be measured using the Fear of Negative Evaluation (FNE) scale, which measures people's propensity to react anxiously to negative feedback from members of a peer group (Watson & Friend, 1969). Members of East Asian cultures tend to have higher scores on this FNE scale than do members of Western cultures. This result suggests that members of East Asian cultures have a greater propensity than do members of Western cultures to react anxiously to negative evaluations by peers. (Note, however, that this difference does not imply that the resting anxiety level differs.)

Kim and Markman (2006) manipulated fear of isolation in American college students by asking them to write about either (a) experiences in which they were anxious or afraid because they were isolated from a group or (b) experiences in which they were anxious or afraid because they caused someone else to be isolated from a group. Thus, although participants in both conditions thought about the concept of isolation, participants were expected to have a higher fear of isolation in the first condition than in the second. Responses to the FNE scale confirmed this expectation.

Participants in both priming conditions were then asked to evaluate their preference for a set of unfamiliar proverbs used in previous cross-cultural studies by Peng and Nisbett (1999). Half of the proverbs were dialectical proverbs that expressed a contradiction (e.g., "Sorrow is borne of excessive joy") and half were nondialectical proverbs that expressed a preference for a single resolution over a contradiction (e.g., "Good friends settle their accounts speedily"). Peng and Nisbett (1999) found that East Asians showed a greater relative preference for dialectical proverbs than did Americans. Consistent with this observation, participants showed greater preference for dialectical proverbs if their fear of isolation was primed than if it was not. Furthermore, statistical analysis demonstrated that this difference in preference was completely accounted for by differences in scores on the FNE scale.

To examine the relationship of this finding with cross-cultural differences, a group of Korean participants was also run (in Korea). They evaluated the proverbs and filled out the FNE scale. However, although their fear of isolation was not primed, these participants had higher scores on the FNE scale than did Americans, regardless of their fear of isolation. They also had a greater relative preference for the dialectical proverbs than the Americans had. Statistical analyses showed that the between-culture variation in preference for dialectical proverbs was completely explained by differences in scores on the FNE Scale.

Similar findings were obtained in a study examining the influence of fear of isolation on people's ability to resolve an interpersonal conflict (Kim & Markman, in preparation). In the study, Americans were more likely to provide a dialectical resolution to the interpersonal conflict if their fear of isolation had been primed than if it had not. However, Koreans whose fear of isolation was not manipulated had higher fear of isolation than Americans in either priming condition, and correspondingly, were more likely to resolve the conflict dialectically than were the Americans.

This study suggests that fear of isolation has similar effects on self-construal. Like an interdependent self-construal, high fear of isolation leads to greater attention to contextual relationships in the environment than does low fear of isolation. Furthermore, it suggests that there are cultural factors that promote chronic differences in these variables in ways that have a general influence on cognitive processing. Further research must explore what factors of culture promote these differences in motivation.

A related question involves trying to better understand what causes the linkage between these variables and motivation. Self-construal could have been a purely cognitive factor that influenced

only the content of the way people think about themselves. However, differences in self-construal clearly have motivational effects. In addition to the observation that self-construal differences lead to similar patterns of behavior to those observed with differences in fear of isolation, there is also evidence that self-construal may be related to differences in regulatory focus (Aaker & Lee, 2001; Higgins, 1987, 1997; Lee, Aaker, & Gardner, 2000). In particular, an independent self-construal may be related to a general sensitivity to potential gains in the environment, or a *promotion* focus (Higgins, 1997). An interdependent self-construal may be related to a general sensitivity to potential losses, or a *prevention* focus. Thus, it is possible that self-construal, fear of isolation, and other related variables like mortality salience (Greenberg et al., 1990; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989) have their effects in part by influencing basic self-regulatory processes like regulatory focus. Future research must explore this possibility.

IMPLICATIONS FOR RESEARCH ON CULTURE AND COGNITION

The work summarized here suggests that cultures have a number of avenues to affect thought. These avenues range from the overt to the subtle. On the overt side, cultures affect the concepts that people are taught. They also influence the habitual modes of problem solving that are presented. On the subtle side, the act of communicating with others helps to synchronize category structures across individuals because of corrections that occur when people are establishing reference during conversation. Furthermore, distinctions that are made by a language can orient people toward particular aspects of the environment and lead them to represent those aspects as a matter of course. Finally, cultures lead to stable chronic individual differences in variables like self-construal and fear of isolation that have consistent influences on cognitive processing.

This research has interesting implications for the study of culture as an entity, as well as for the examination of cultural influences on cognition. For those interested in the study of culture, two key issues emerge. First, research can examine the factors that support observed cultural differences in psychological variables. For example, what cultural factors promote reliable differences in self-construal and fear of isolation? Likewise, are there particular cultural factors that support specific modes of problem solving or representation?

Second, research should explore whether the relationship between culture and individual psychology makes some clusters of cultural properties more stable than others. For example, interdependent self-construal and high fear of isolation seem to co-occur in cultures that are described as collectivist. There is a certain face-validity to this grouping, but it is worth examining the relationships among these variables in more detail. It is logically possible for members of a collectivist culture to have a relatively independent self-construal, but high fear of isolation. It would be useful to better understand why some of these patterns are not typically observed.

As this discussion implies, this work suggests that culture is an important social construct and that further study of culture will greatly illuminate our understanding of psychological variables and also of psychological variability. That is, cultural differences give us a window into a range of behaviors that are obscured by our tendency to focus research on Western-educated college students and to treat deviations from the mean performance of this group as noise.

At the same time, this work also suggests that it may be possible to eliminate culture as an explanatory variable in psychological models. That is, at present, much work in cultural psychology presents differences in performance of different cultural groups. In these studies, culture is a stand-in for a cluster of psychological variables that drive the behavior of the individuals in the study. By better understanding the psychological variables correlated with culture, we should ultimately be able to explain these differences in behavior in terms of other variables. An important reason for engaging in this style of research is that it will ultimately provide us with a better understanding of variability in performance within cultures as well. That is, the study of cultural differences can help us to treat the variability in the performance of participants in our studies as signal rather than noise.

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REFERENCES

- Aaker, J. L., & Lee, A. Y. (2001). "I" seek pleasures and "we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28(1), 33–49.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497–529.
- Bond, M. H., & Cheung, T. S. (1983). College students' spontaneous self-concept: The effect of culture among respondents in Hong Kong, Japan and the United States. *Journal of Cross-Cultural Psychology*, 14(2), 153–171.
- Campos, J. J., Anderson, D. I., Barbu-Roth, M. A., Hubbard, E. M., Hertenstein, M. J., & Witherington, D. (2000). Travel broadens the mind. *Infancy*, 1(2), 149–219.
- Chao, M. M., Chen, J., Roisman, G. I., & Hong, Y. Y. (2007). Essentializing race: Implications for bicultural individuals' cognition and physiological reactivity. *Psychological Science*, 18(4), 341–348.
- Cheng, P. W. (1997). From covariation to causation: A causal power theory. *Psychological Review*, 104(2), 367–405.
- Cheng, P. W., & Novick, L. R. (1992). Covariation in natural causal induction. *Psychological Review*, 99(2), 365–382.
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, 122(1), 5–37.
- Fuson, K. C., & Briars, D. J. (1990). Using a base-ten blocks learning/teaching approach for first- and second-grade place-value and multidigit addition and subtraction. *Journal of Research in Mathematics Education*, 21(3), 180–206.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). "I" value freedom, but "we" value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10(4), 321–326.
- Garrod, S., & Anderson, A. (1987). Saying what you mean in dialogue: A study in conceptual and semantic co-ordination. *Cognition*, 27, 181–218.
- Garrod, S., & Doherty, G. (1994). Conversation, co-ordination and convention: An empirical investigation of how groups establish linguistic conventions. *Cognition*, 53, 181–215.
- Gelman, S. A., & Heyman, G. D. (1999). Carrot-eaters and creature-believers: The effects of lexicalization on children's inferences about social categories. *Psychological Science*, 10(6), 489–493.
- Gentner, D., & Goldin-Meadow, S. (Eds.). (2003). *Language in mind*. Cambridge, MA: The MIT Press.
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., et al. (1990). Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural world view. *Journal of Personality and Social Psychology*, 58(2), 308–318.
- Gumperz, J. J., & Levinson, S. C. (Eds.). (1996). *Rethinking linguistic relativity*. New York: Cambridge University Press.
- Hardin, E. E., Leong, F. T. L., & Bhatwat, A. A. (2004). Factor structure of the self-construal scale revisited: Implications for the multidimensionality of self-construal. *Journal of Cross-Cultural Psychology*, 35, 327–345.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., et al. (2005). "Economic man" in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavioral and Brain Sciences*, 28(6), 795–815.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3), 319–340.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280–1300.
- Hong, Y. Y., & Chiu, C. Y. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, 19(3), 181–196.
- Hutchins, E. (1983). Understanding Micronesian navigation. In D. Gentner & A. L. Stevens (Eds.), *Mental models* (pp. 191–225). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: The MIT Press.

- Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology*, 3, 1–24.
- Kim, K., Grimm, L. R., & Markman, A. B. (2007). Self-construal and the processing of covariation information in causal reasoning. *Memory and Cognition*, 35(6), 1337–1343.
- Kim, K., & Markman, A. B. (2006). Differences in fear of isolation as an explanation of cultural differences: Evidence from memory and reasoning. *Journal of Experimental Social Psychology*, 42, 350–364.
- Kuhn, M. H., & McPartland, T. (1954). An empirical investigation of self-attitudes. *American Sociological Review*, 19, 224–253.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.
- Latané, B. (1996). Dynamic social impact: The creation of culture by communication. *Journal of Communication*, 46, 13–25.
- Latané, B., & L'Herrou, T. (1996). Spatial clustering in the conformity game: Dynamic social impact in electronic groups. *Journal of Personality and Social Psychology*, 70(6), 1218–1230.
- Lau, I. Y. M., Lee, S. L., & Chiu, C. Y. (2004). Language, cognition, and reality: Constructing shared meanings through communication. In M. Schaller & C. S. Crandall (Eds.), *The psychological foundations of culture* (pp. 77–100). Mahwah, NJ: Lawrence Erlbaum Associates.
- Lee, A. Y., Aaker, J. L., & Gardner, W. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78(6), 1122–1134.
- Lehman, D. R., Chiu, C. Y., & Schaller, M. (2004). Psychology and culture. *Annual Review of Psychology*, 55, 689–714.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Maddox, W. T., Markman, A. B., & Baldwin, G. C. (2006). Using classification to understand the motivation-learning interface. *Psychology of Learning and Motivation*, 47, 213–250.
- Malt, B. C., Sloman, S. A., Gennari, S., Shi, M., & Wang, Y. (1999). Knowing versus naming: Similarity of the linguistic categorization of artifacts. *Journal of Memory and Language*, 40, 230–262.
- Malt, B. C., Sloman, S. A., & Gennari, S. P. (2003). Universality and language specificity in object naming. *Journal of Memory and Language*, 49, 20–42.
- Markman, A. B., & Makin, V. S. (1998). Referential communication and category acquisition. *Journal of Experimental Psychology: General*, 127(4), 331–354.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253.
- Medin, D. L., & Atran, S. (2004). The native mind: Biological categorization and reasoning in development and across cultures. *Psychological Review*, 111(4), 960–983.
- Medin, D. L., Lynch, E. B., Coley, J. D., & Atran, S. (1997). Categorization and reasoning among tree experts: Do all roads lead to Rome? *Cognitive Psychology*, 32(1), 49–96.
- Medin, D. L., & Ortony, A. (1989). Psychological essentialism. In S. Vosniadou & A. Ortony (Eds.), *Similarity and analogical reasoning* (pp. 179–195). New York: Cambridge University Press.
- Miura, I. T., Kim, C. C., Chang, C. M., & Okamoto, Y. (1988). Effects of language characteristics on children's cognitive representation of number: Cross-national comparisons. *Child Development*, 59, 1445–1450.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, 67(6), 949–971.
- Navon, D. (1977). The precedence of global features in visual perception. *Cognitive Psychology*, 9, 353–383.
- Noelle-Neumann, E. (1984). *The spiral of silence: Public opinion, our social skin*. Chicago: University of Chicago Press.
- Osherson, D. N., Smith, E. E., Wilkie, O., Lopez, A., & Shafir, E. (1990). Category based induction. *Psychological Review*, 97(2), 185–200.
- Peng, K. P., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, 54(9), 741–754.
- Proffitt, J. B., Coley, J. D., & Medin, D. L. (2000). Expertise and category-based induction. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 26(4), 811–828.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory: I. The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology*, 57(4), 681–690.
- Ross, L. D., Amabile, T. M., & Steinmetz, J. L. (1977). Social roles, social control, and biases in social-perception processes. *Journal of Personality and Social Psychology*, 35, 485–494.

- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580–591.
- Slobin, D. I. (1996). From “thought and language” to “thinking for speaking”. In J. J. Gumperz & S. C. Levinson (Eds.), *Rethinking linguistic relativity* (pp. 70–96). New York: Cambridge University Press.
- Spellman, B. A. (1996). Acting as intuitive scientists: Contingency judgments are made while controlling for alternative potential causes. *Psychological Science*, 7(6), 337–342.
- Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.
- Tomasello, M., Carpenter, M., Call, J., Behne, T., & Moll, H. (2005). Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and Brain Sciences*, 28, 675–735.
- Triandis, H. C. (2001). Individualism and collectivism: Past, present, and future. In D. Matsumoto (Ed.), *The handbook of culture and psychology* (pp. 35–50). New York: Oxford University Press.
- Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33(4), 448–457.
- Yamauchi, T., & Markman, A. B. (2000). Inference using categories. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 26(3), 776–795.

Section II

*Dimensions of National Cultures
and Their Measurement*

6 Cultural Mapping of Beliefs About the World and Their Application to a Social Psychology Involving Culture *Futurescaping*

Michael Harris Bond and Kwok Leung

The map is not the territory.

Alfred Korzybski
“A Non-Aristotelian System and Its Necessity
for Rigour in Mathematics and Physics” 1931

Cultural differences in social psychological responses are now well documented (Smith, Bond, & Kağıtçıbaşı, 2006). If our scientific enterprise involves building models that explain these differences, then it would seem sensible to begin incorporating culture scientifically into our models of social responding and our subsequent tests of these models. This chapter lays out the considerations for building culture into our models, and it illustrates the process with the emerging construct of social axioms (Leung et al., 2002).

Let us take a model of social behavior to consist of a set of constructs whose joint interplay leads to the social response one is trying to explain, namely, the *explicandum*. How could culture influence this social response, and how then could culture enter into our models for explaining various social responses? First, we suggest that culture influences the strength of the constructs driving the social responses predicted by our model, the *explicandum*. This is called the positioning effect of culture. Second, culture moderates the impact of constructs upon other constructs, such that the model works in different ways for persons socialized into different cultural systems. This is called the moderating effect of culture (see Bond & van de Vijver, in press).

How culture affects this impact on social responding is through the socialization procedures that act upon its members to produce human beings effective in negotiating their cultural worlds at different stages of the life cycle. A culture member’s competence resides in his or her profile of skills, habits, temperamental dispositions, motivations, beliefs, and awareness of situational norms. Together, these personal resources enable the person to find a niche within that cultural setting and adequately meet the role prescriptions of his or her cultural group (Hogan & Bond, in press). There will be some variation in these social-psychological characteristics across a culture group’s members, greater for some characteristics than others, and greater in some cultural settings than in others (Gelfand, this volume; Smith et al., 2006, chapter 7). Nonetheless, for purposes of broad description, social scientists may refer to the typical level of a given psychological disposition as being characteristic of that cultural group.

It is these social-psychological dispositions that enter our models of social responding as constructs shaping the other constructs in our model and eventually yielding the response of scientific interest. If the level of a given construct in one cultural group is on average higher than that same construct in another cultural group, then its influence on other linked constructs will lead to higher levels of those constructs, that is, a cultural difference in these dependent, downstream constructs. This effect of culture has been described as its “positioning effect” (Leung & Bond, 1989).

The above argument assumes universality of relationships between variables across societies. It is entirely possible that the model may work in different ways in different cultural groups; there is no guarantee that social psychological processes operate in the same ways across different cultural groups, despite the innocent assumption of universality that underpins most research and theorizing in social psychology. The same constructs may operate differently in different cultural settings (Markus & Kitayama, 2003), though empirical data supporting this premonition is sparse. Regression analyses and structural equation modeling of processes in two or more cultural groups can provide empirical assessments of equivalence or difference in model functioning, identifying those parts of the model that are culture-group dependent. So, for example, Kam and Bond (2008) found that a person’s level of face-loss following harm by another predicted anger in Hong Kong victims more strongly than in American victims. This kind of cultural difference may be called the “linking effect” of culture (Bond & van de Vijver, in press), producing models with different strengths in some or all of the connections among its constituent constructs.

There may be many reasons why a relationship between two constructs varies across cultures, and our main point is that we need to develop systematic frameworks for explaining this type of variation, too. Both the positioning and the moderating effects of culture must be identified and eventually explained if our models of social responding are to incorporate culture as a parameter. Further, the polysemous concept of culture must be unpacked by deploying the social-psychological constructs and measures used by social psychologists in their models. To date, cross-culturalists have turned to motivational constructs like values (Schwartz, 1992), to personality dispositions like self-esteem (e.g., Diener & Diener, 1995) or self-efficacy (Bandura, 2002), and to expectancy constructs like internal-external locus of control (Rotter, 1966). Most of these constructs have been and are still being measured explicitly, but slowly implicit measures are being employed (Hofer & Bond, 2009) in response to concerns that culture may operate below the level of awareness (Cohen, 1997).

Recently, researchers have developed a comprehensive model of these expectancies, called social axioms or beliefs about the world (Leung & Bond, 2004). In this chapter, we will discuss the use of social axioms as a potentially valuable construct for introducing culture into models of social responding. Because these models acknowledge culture, measure its socialized manifestations in its culture members, and assess the impact of these constructs on the *explicandum* addressed by the model, they may assert a legitimate claim to universality.

CULTURE AS SHELTER FROM THE STORMS OF HUMAN LIFE

...one great blooming, buzzing confusion.

William James
The Principles of Psychology

Culture is a solution to the chaos assailing all babies, who are “thrown into life” armed with little but the capacity to learn the regularities characterizing the flow of events in their proximal environment. Given their lengthy dependency on their immediate family for safety, nurturance, and contact, expectancies associated with how parents and siblings reward and punish the baby’s attempts to meet his or her needs become important expectancies for the maturing child to master. This

proximal structure of reinforcement contingencies is shaped by the local culture and transmitted into the family by the authority figures in that family.

There will be interfamily variation in the translation of culturally approved forms of socialization, depending on the capacities and character of the authority figures and the exigencies of each family's circumstances. All cultural systems, however, have an investment in their own survival, having adequately confronted to date what Berger (1967) aptly described as the "precariousness of all social worlds":

[T]he marginal situations of human existence reveal the innate precariousness of all social worlds... Every socially constructed *nomos* must face the constant possibility of its collapse into anomie...every *nomos* is an area of meaning carved out of a vast mass of meaninglessness, a small clearing of lucidity in a formless, dark, always ominous jungle. (p. 23)

It is the genius of social systems to have sufficiently disguised the terror of living that its members do not sense its precariousness or the conservative forces at play to maintain that system (Schwartz, 1994). These social systems require minimum standards of human capital-building to be met by the authority figures of the family to ensure the perpetuation of the culture by succeeding generations. Abuse of this opportunity or failure to achieve a minimal level of success in what Satir (1972) called "peoplemaking" sooner or later results in some form of intervention by the wider social system.

Homogenizing forces come into stronger play as the maturing child emerges from his or her family of origin and undertakes the work of their local world, appropriate to their cultural group's ecological circumstances and traditions. This "work" is typically academic schooling, but in some cultural groups may be military service, hunting, weaving textiles, working in sex trades, or farming. Regardless, as the young adult interfaces with his or her widening society, enforcement agencies come into play as imagined or actual forces regulating the culture member's public performances. The cultural system asserts its authority, however unsensed those controls may be by its enactors.

Our daily social performances are regulated by norms designed to protect and promote the interests of society at large and the groups of which we are members. As Pepitone (1976) described the general process, "When individuals discover that they have needs and fears in common they are apt to make collective arrangements to take care of them. Rules, values, traditions and the like represent such arrangements" (p. 650). These rules constitute the *modus operandi* by which individual impulses are disciplined so that our conduct may be coordinated and the benefits of social living may accrue to all members of the group. Group members follow these norms in light of their understanding of the rules, their capacity to self-regulate, and the incentives associated with rule-breaking. Most people comply most of the time, making social life tolerable and beneficial.

Inculcation of these norms is facilitated by the universal acquisition of the language and grammar used by the cultural group. "Man also produces language and on its foundation and by means of it, a towering edifice of symbols that permeate every aspect of his life" (Berger, 1967, p. 6). Crucially, language enables people to carve up reality, to organize those chunks into models of truth, and to communicate directly and indirectly to fellow culturalists about the norms defining how our system works in practice (descriptive norms) and how our system should work (prescriptive norms).

Culture thus becomes an answer to the fundamental question of how we are to live together, so that we may flourish as social creatures and not perish in an anomic, self-seeking jungle of Darwinian savagery. It provides each of its members with a sustaining plausibility structure for living, supported by the social institutions that legitimate this view of reality and of the interpersonal relations necessary to sustain our way of life (Berger, 1969). Each culture thus constitutes a way of life and of living together that is endowed with rightness and merit because it resolves the "great blooming, buzzing confusion" confronting the uncultured baby, and is endorsed, supported, and often idealized by our co-culturalists, enabling us to survive together, mobilize our human and material resources, and to flourish within the constraints facing our cultural group. We are redeemed from chaos by our cultures.

BRINGING CULTURE INTO SOCIAL PSYCHOLOGY

Perhaps on some quiet night the tremor of far-off drums
 sinking, swelling, a tremor vast, faint;
 a sound weird, appealing, suggestive and wild –
 and perhaps with as profound a meaning
 as the sound of bells in a Christian country.

Joseph Conrad

The Heart of Darkness

Do we accept that there are meaningful differences in the typical social responses of persons from different cultural groups? If so, then we have a normative difference in Pepitone's (1976) sense:

By normative is meant that such social behavior is more characteristic (e.g., more uniform) of some socio-cultural collective unit than of individuals observed at random. For present purposes, a socio-cultural unit refers to any ethnocultural group, class or organizational structure of roles, status positions and subgroups. (p. 642)

Building a social psychology to explain normative differences across cultural groups in our given *explicandum* requires that we conceptualize culture with respect to our social response of scientific interest, As Pepitone (1976, p. 642) put it, “underlying normative social behavior are dynamisms that are part of and are generated by the collective system of interdependent individuals or other components.” We must use our knowledge and intuitions about the cultural groups being examined to develop ideas about the processes leading to the social response we want to understand. Then, we must figure out how culture gets socialized into the software of its members, measure this socialized characteristic in culturally equivalent ways, and fairly test its hypothesized mode of operation in our model for the production of that social response.

Realizing this deceptively simple formula in practice has been elaborated in a hands-on chapter by Bond (1995) that describes the messy process of doing viable cross-cultural research in social psychology. For present purposes, we wish to assume a more general theoretical stance toward doing social psychology across cultures. To structure our thoughts, we will use Pepitone's (1976) prescient guidelines for redirecting social psychology by incorporating culture into our work. We will illustrate his threefold prescription by applying each prescription to the construct of social axioms (Leung & Bond, 2004).

THE PEPITONE PRESCRIPTION

If politics is the art of the possible, research is surely the art of the soluble.
 Both are immensely practical-minded affairs.

Peter Medawar

New Statesman, June 19, 1964

Some three decades ago, Pepitone (1976) wrote of his concern that the scientific enterprise of social psychology had become seriously misdirected. His assessment of the crisis that many were lamenting was that the unit of analysis had been overlooked. He claimed that

the social phenomena of interest to social psychologists in the real world, as well as the dependent variables investigated in the field and laboratory, tend to be wholly or partly “normative.” By normative is meant that such social behavior is more characteristic (e.g., more uniform) of some socio-cultural collective unit than of individuals observed at random. (p. 642)

That is, Pepitone was claiming that social psychologists are, and indeed should be, exploring social regularities in behavior. He then claimed

the determinants or sources of such behavior are properties of, and have their locus in, the same social unit of which the behavior is distinctly characteristic. In other words, underlying social normative social behavior are dynamisms that are part of and are generated by the collective system of interdependent individuals or other components. (p. 642)

So, if one accepts Pepitone's assessment to this point, then the collective system out of which our behaviors of interest emerge, the *explicandum*, must be regarded as constituting an essential component in our theorizing and our measurement. Culture should routinely be incorporated into the future work of social psychology.

As a solution to the impasse he identified, Pepitone (1976) suggested three directions for a revitalized social psychology to follow:

Knowledge from three stages of research and analysis will be necessary for a re-directed social psychology: (a) the identification of normative social behavior and a description of the value-belief systems that are its source through a comparison of socio-cultural groups and other collective entities; (b) analyses of the structure and functioning of value-belief systems, including experimentally based specifications of the conditions under which they are activated; (c) focused investigations of the origin of selected value-belief systems, involving the collection and integration of knowledge from such areas as the physical environment, economics, social and political history, individual psychology, and evolutionary biology. (p. 652)

Pepitone's (1976) rallying call fell largely upon deaf ears, as our discipline continued doing culture-free business as usual, so that his concerns continue to echo into our present. In the trenches of cross-cultural psychology, however, work was being done that could eventually address his challenge. So, let us take each of these three stages in turn, introduce the construct of social axioms, and show how current work with that construct may be used to fill Pepitone's prescription for creating a more social, social psychology, one that gives pride-of-place to culture as one of the systems out of which individual social behavior emerges.

STAGE #1—LINNAEUS'S WORLD

To reiterate, Pepitone's first stage involved "the identification of normative social behavior and a description of the value-belief systems that are its source through a comparison of socio-cultural groups and other collective entities" (p. 652). He was calling for a Linnaean structure classifying beliefs and values. To date there have been few multicultural studies enabling social scientists to distinguish modal patterns of social behavior across cultural groups. Levine's studies of helping (Levine, Norenzayan, & Philbrick, 2001) and of pace of life (Levine, & Norenzayan, 1999) are welcome exceptions to this understandable but lamentable gap in our literature. But, we must welcome these examples, since they demonstrate that there is a cultural case for social psychologists to answer.

Pepitone (1976) identified beliefs and values as central constructs in his general model for the explanation of normative behavior, which we know he posited as the appropriate *explicanda* for an ecologically valid social psychology. He did not specify their interplay, but subsequent theories like Feather's (1982) expectancy-value theory can be deployed to do so (see Stage #2, following). As a first step, however, Pepitone called for "a description of the value-belief systems that are its source through a comparison of socio-cultural groups and other collective entities" (p. 652). In the case of values, this call to action has been met by the exemplary research program undertaken over the last two decades by Schwartz (1992, 1994, this volume). We will describe a more recent, multicultural project on beliefs initiated by Leung and Bond in this last decade.

Mapping social axioms. Is it true, as Pascal maintained, "There are truths on one side of the Pyrennes that are falsehoods on the other"? If so, which truths? Leung and Bond began with the assumptions that, to be relevant to the daily lives of people, truths should be identifiable in the

public productions and awareness of social actors. So, we scoured newspapers, collections of sayings and the psychological literature for beliefs-in-use, defining *social axioms* as “a description and perception of an object, its characteristics, and its relationships with other objects” (Katz, 1960, p. 164), where “object” includes social categories and concepts” (Leung et al., 2002, p. 288). We were searching for generalized beliefs about people in general, the social environment, or the spiritual and physical world, not about the respondent as a distinctive individual, for that was the typical domain of personality psychologists. We wanted, instead, to get at the cognitive component of people’s worldviews, described by Koltko-Rivera (2004, p. 4) as “a way of describing the universe and life within it, both in terms of what is and what ought to be. A given worldview is a set of beliefs that includes limiting statements regarding what exists and what does not.” Note that a major difference between axioms and traditional constructs tapping individual differences is that axioms are not about oneself, but are about one’s social world, one’s *umwelt*.

Leung et al. (2002) also conducted focused interviews in both Hong Kong and Venezuelan societies to extract further beliefs from a wide range of their citizens. Redundancies in these identified social axioms were simplified into an 82-item list that was distributed to university students in Hong Kong, Venezuela, Japan, Germany, and the U.S. (Leung et al., 2002). Five cross-culturally equivalent factors of belief were identified through this procedure, a structure later confirmed in both adults and university students in 40 different societies (Leung & Bond, 2004). Briefly put, *social cynicism* indicates a generally negative view of people and social institutions and the extent to which actors expect negative outcomes from their engagements with life, especially with more powerful others. *Social complexity* indicates an actor’s judgments about the variability of individual behavior and the number of influences involved in determining social outcomes. *Reward for application* indicates how strongly a person believes that challenges and difficulties will succumb to persistent inputs, such as relevant knowledge, exertion of effort, or careful planning. *Religiosity* indicates an assessment about the positive personal and social consequences of religious practice, along with the belief in the existence of a supreme being. *Fate control* indicates the degree to which important outcomes in life are believed to be fated and under the control of impersonal forces, but forces that are predictable and alterable. The items defining these five dimensions and their loadings in the pan-cultural study of 40 cultural groups are presented in Table 6.1.

Having established metrically equivalent dimensions of social axioms, Leung and Bond (2004) were able to calculate an average score for the five dimensions across their 40 cultural groups. Just as Mercator used latitude and longitude to organize locations on our globe, we could use these five dimensions to pattern an individual’s profile of beliefs. Although these were student averages, we proposed these as “citizen scores,” for initial purposes representing the scores of the typical member of that cultural group, at least relative to members of the other groups. These average scores are listed in Table 6.2.

To date, research projects studying values have tended not to analyze their data in ways that yield citizen scores. Instead, they, like Schwartz (1994) publish culture scores representing the relative position of constituent nations or ethnic groups within those nations. This approach may be taken with beliefs (Bond et al., 2004) and yields a two-factor mapping of beliefs at the national-culture level, paralleling Mercator’s longitude and latitude. The five-factor structure at the individual level and the two-factor structure at the culture level have been confirmed with multi-level factor analysis, a more accurate analytic procedure (Cheung, Leung, & Au, 2006). The culture-level mapping of social axioms at the culture level is presented in Figure 6.1.

These aspects of the Leung and Bond project identifying, measuring, and comparing social axioms in numerous cultures satisfy Pepitone’s (1976) call for “a description of the value-belief systems...through a comparison of socio-cultural groups and other collective entities” (p. 652). Having mapped part of the psychological world in scientifically defensible ways, we next move to Pepitone’s stage #2 where the functional utility of these values and beliefs can be assessed. For a detailed discussion of the validity of the axiom dimensions, their nomological networks, and their

TABLE 6.1
Factor Solution of the Adult Sample Based on the Items Identified in the Student Solution

Item	1 Social Cynicism	2 Social Complexity	3 Reward for Application	4 Religiosity	5 Fate Control
Kind-hearted people usually suffer losses.	.62				
Power and status make people arrogant.	.62				
Powerful people tend to exploit others.	.61				
Kind-hearted people are easily bullied.	.60				
People will stop working hard after they secure a comfortable life.	.47				
It is rare to see a happy ending in real life.	.46				
To care about societal affairs only brings trouble for yourself.	.42				
The various social institutions in society are biased toward the rich.	.39				
People deeply in love are usually blind.	.32				
Young people are impulsive and unreliable.	.31				.39
Old people are usually stubborn and biased.	.28				.26
People may have opposite behaviors on different occasions.			.59		
One's behaviors may be contrary to his or her true feelings.			.54		
Human behavior changes with the social context.			.50		
Current losses are not necessarily bad for one's long-term future.			.40		
There is usually only one way to solve a problem.			.38		-.29
One has to deal with matters according to the specific circumstances.			.38		
Adversity can be overcome with effort.				.62	
One will succeed if he/she really tries.				.61	
One who does not know how to plan his or her future will eventually fail.				.55	
Every problem has a solution.				.55	
Hard-working people will achieve more in the end.				.49	
Knowledge is necessary for success.				.47	
Competition brings about progress.				.47	
Caution helps one avoid mistakes.				.29	
Failure is the beginning of success.				.25	.27
Belief in a religion helps one understand the meaning of life.					.75
Religious faith contributes to good mental health.					.71

TABLE 6.1 (continued)**Factor Solution of the Adult Sample Based on the Items Identified in the Student Solution**

Item	1 Social Cynicism	2 Social Complexity	3 Reward for Application	4 Religiosity	5 Fate Control
Belief in a religion makes people good citizens.				.67	
There is a supreme being controlling the universe.				.62	
Religion makes people escape from reality.				.58	
Religious people are more likely to maintain moral standards.				.56	
Religious beliefs lead to unscientific thinking.	-.26			.54	
There are many ways for people to predict what will happen in the future.				.62	
Individual characteristics, such as appearance and birthday, affect one's fate.				.54	
Good luck follows if one survives a disaster.				.50	
There are certain ways to help us improve our luck and avoid unlucky things.				.50	
Fate determines one's successes and failures.	.34			.44	
Most disasters can be predicted.				.43	

Note: Some items are recoded, so that the primary loadings are positive regardless of the actual wording. Only loadings larger than .25 are presented. The variances accounted for by these five factors are 7.66% (social cynicism), 4.74% (social complexity), 6.32% (reward for application), 7.84% (religiosity), and 5.53% (fate control).

structure at the individual and culture levels, see Leung and Bond (2004), Leung and Bond (2007), and Leung and Bond (in press).

Are axioms measures of personality? Before we proceed to examine the role of axioms in shaping social processes, an initial concern has first to be met—are beliefs held by the individual about the world mere projections of his or her personality as typically studied by personality psychologists? Do we, as Anaïs Nin claimed, “see the world not as it is, but as we are,” that is, as a projective tapestry of our personal motivations and self-beliefs? To assess this claim, we conducted studies where we measured a person’s beliefs about the world using our social axioms survey along with traditional measures of personality used by psychologists, namely, the NEO-FFI for measuring the big five personality dimensions (Costa & McCrae, 1992); the CPAI-2 (Cheung, Cheung, Leung, Ward, & Leong, 2003), an indigenous measure of personality developed in the Chinese cultural context; the SAPPS (Yik & Bond, 1993), an indigenous measure of Chinese personality based on trait terms; and self-construal measures of horizontal-vertical independence and interdependence (Triandis & Gelfand, 1998).

The results of these studies (Chen, Bond, & Cheung, 2006a; Chen, Fok, Bond, & Matsumoto, 2006b) suggested that social axioms were only somewhat related to such measures of personality. Using the CPAI-2, an indigenously developed personality inventory, Chen et al. (2006a, p. 509) concluded, “the overlap between the CPAI-2 and the SAS was slight, suggesting that personality and beliefs about the world are two distinct multidimensional concepts, and that their overlap lies in

TABLE 6.2
Citizen Axiom Scores Derived From the Student Samples in 40 Cultures

Citizen	Social Cynicism	Social Complexity	Reward for Application	Religiosity	Fate Control
American (Caucasian)	2.65	4.10	3.66	3.18	2.46
Belgian	2.97	4.03	3.36	2.58	2.58
Brazilian	2.81	3.98	3.54	3.39	2.49
British	2.75	4.11	3.46	2.81	2.35
Canadian	2.63	4.20	3.74	3.10	2.43
Chinese	3.03	4.08	3.74	2.92	2.90
Czech	2.77	4.10	3.29	3.10	2.62
Dutch	2.62	4.18	3.18	2.73	2.56
Estonian	3.16	4.11	3.81	2.70	2.81
Filipino	2.84	4.09	4.03	3.52	2.60
Finn	2.76	4.08	3.59	3.07	2.54
French	3.05	4.08	3.56	2.60	2.62
Georgian	3.37	3.88	3.69	3.65	3.00
German	3.32	4.33	3.76	2.93	2.77
Greek	3.32	4.02	3.73	3.13	2.37
Hong Kong Chinese	3.13	4.08	3.70	3.44	2.69
Hungarian	2.96	4.13	3.40	2.99	2.67
Indian	3.04	3.92	4.19	3.37	2.97
Indonesian	2.72	3.96	4.14	4.22	2.91
Iranian	2.89	3.79	4.12	4.15	2.85
Israeli	2.76	4.16	3.60	2.60	2.53
Italian	2.74	4.01	3.28	2.72	2.29
Japanese	3.16	4.04	3.50	2.65	2.59
Korean	3.16	3.98	3.85	3.10	2.98
Latvian	3.05	4.02	3.58	3.10	2.77
Lebanese	3.05	4.11	3.77	3.10	2.47
Malaysian	2.88	3.93	4.29	4.30	2.96
New Zealander	2.77	4.14	3.59	2.83	2.34
Nigerian	2.98	3.89	4.04	3.67	3.08
Norwegian	2.66	4.37	3.53	2.55	2.01
Pakistani	3.29	3.77	4.15	4.40	3.15
Peruvian	3.29	3.67	3.88	3.21	2.48
Portuguese	2.87	3.90	3.61	3.09	2.43
Romanian	3.23	3.72	3.74	3.29	2.55
Russian	3.09	3.86	3.82	3.12	2.97
Singaporean	2.93	4.14	3.78	3.24	2.52
Spanish	2.89	4.14	3.48	2.40	2.27
Taiwanese	3.30	4.22	3.87	3.22	3.01
Thai	3.22	3.80	3.98	3.43	3.14
Turk	2.94	4.14	3.97	3.48	2.68

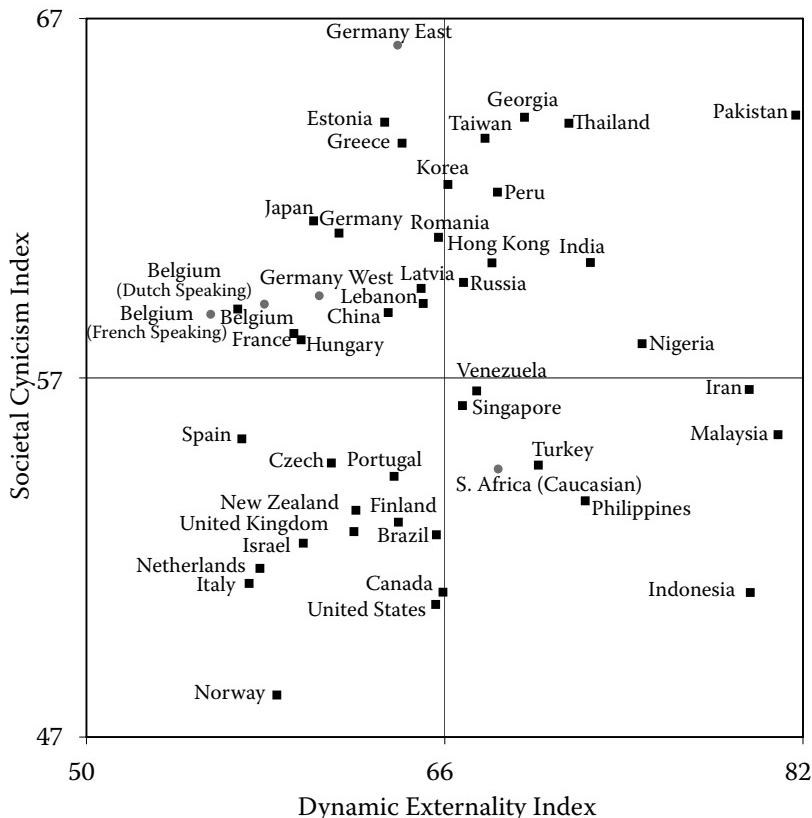


FIGURE 6.1 Scatter plot of 40 nations as a function of their dynamic externality and societal cynicism.

self-assessments of personal control.” Use of canonical correlation in Chen et al. (2006b) revealed a somewhat stronger set of relationships between social axioms and traditional personality measures than was suggested by the simple correlations either in their study or in Chen et al. (2006a). They found two significant pairs of canonical correlates:

The first pair grouped high intellect, low openness and low helpfulness with high fate control, religiosity and social cynicism, and low social complexity.... The second pair of variates clustered round the personality traits of restraint, extraversion, and helpfulness together with less belief in social cynicism and lower social complexity. (p. 210)

The low correlations between axioms and personality dimensions are impressive because in some personality scales, the format of some items actually resembles that of axiom items, that is, respondents are asked to express their views on other people. These axiom-like items in personality measures are assumed to capture respondents’ dispositional tendencies through assessing their perception of the social world, whereas in our axiom framework, we argue that axioms reflect social reality beyond one’s dispositional tendencies. This point of divergence between the two approaches has not been examined, and future research is needed to evaluate the validity of these two different assumptions.

The relationships between social axioms and Schwartz’s (1992) values have also been explored in five cultures (Leung, Au, Huang, Kurman, Niit, & Niit, 2007). Structural equation modeling showed that the five axiom dimensions were related to the ten value types in a meaningful and inter-

pretable manner across cultures. However, these relationships were generally quite small, and only the dimension of religiosity showed somewhat larger correlations with a few value types.

In sum, compared to traditional measures of personality and values, axioms thus appear to be mapping out somewhat related but distinguishable and empirically distinct constructs at the individual level. Both are assessed by the respondent but refer to different domains. Personality is about the self, whereas axioms represent people's perception or apprehension of their social world and provide an important way to tap the value-belief systems described by Pepitone.

STAGE #2—ENTER NEWTON

The “so what?” challenge in science requires that we go beyond identifying, measuring, and comparing constructs, however suggestive they may be. Mercator provided navigators with a set of coordinates whose function was to assist them in sailing efficiently from point A to point B. Similarly, we have striven to explore how social axioms function to guide the individual through the “great blooming, buzzing confusion” of daily life, shaping interpretations of events and guiding behavior through the maze of a person’s encounters with the physical, social, and spiritual world.

What are the functions served by these five dimensions of thinking about the world? Leung and Bond (2004) provided a broad framework for considering the functions served by social axioms:

[B]eliefs and other attitudinal constructs serve at least four functions for human survival and functioning (Katz, 1960; Kruglanski, 1989). Following this argument, we propose that these axioms “facilitate the attainment of important goals (instrumental), help people protect their self-worth (ego-defensive), serve as a manifestation of people’s values (value-expressive), and help people understand the world (knowledge)” (Leung et al., 2002, p. 288). Given this extensive range of functions, social axioms qualify to be considered as fundamental psychological constructs. We expect that they may be linked to other broad psychological constructs like values, and predict more specific psychological constructs like domain-specific efficacies (Bandura, 2002) or beliefs about the causes and cures of psychological problems (Luk & Bond, 1992). Axioms will help channel one’s behavior, as in expectancy-value theories (Feather, 1982), and provide mechanisms for explaining personal outcomes, interpersonal exchanges and environmental events, both human and physical. (p 130–131)

This framework for approaching the function of social axioms was made deliberately broad, so that we could remain open to whatever implications could be drawn from subsequent research on the role of the five belief dimensions in human adaptation.

So, for example, we had argued for the role of axioms as important in helping people to understand the world. Focusing on this essential function, Leung, Hui, and Bond (2007) explored how dimensions of beliefs are related to the ways people explain their daily successes and failures. A longitudinal design was used to link prior axioms to subsequent explanations for a person’s outcomes over the next three months. Fate control, reward for application, and social cynicism were involved in this process, relating to attributional categories like controllability, internality, and stability. Social cynicism, for example, correlated negatively with internality, the tendency to explain outcomes as arising from one’s personal qualities. Perhaps viewing the social world cynically is an adaptive withdrawal mechanism useful for some persons, functioning to distance the individual from responsibility for his or her outcomes. One’s life is a consequence of social as well as internal forces.

Another example is provided by Kurman and Ronen (2004), who examined the adaptive value of social axioms. Immigrants in Israel were surveyed and asked to respond to the Social Axioms Survey as well as to estimate the axiom scores of average Israelis. A random sample of Israelis was asked to respond to the Social Axioms Survey to generate the profile for average Israelis. Results showed that for the immigrants, better knowledge of the average axiom scores in Israel was generally related to better adaptation to life in Israel. Schwartz’s value survey was also included in the study, and results showed that knowledge about axioms in Israel was generally more predictive of

adaptation than knowledge about values in Israel. An interesting feature of the study is that knowledge of the profile of the axiom scores for the average Israelis and adoption of this profile were contrasted in terms of their impact on adaptation of the immigrants. It turns out that axiom knowledge predicted both social and functional adaptation, while axiom adoption only predicted social adaptation. These findings provide support for the function of axioms, not only one's own beliefs, but also knowledge of the axiom profile of people that one has to interact with, as an important guide for conducting one's social life effectively.

Tapping the “elusive situation”? Social axioms could be considered as a measure of the external situation as perceived by the actor, that is, Murray's (1938) “beta press.” A good illustration of its value in predicting behavior is to combine it with traditional measures of personality to yield stronger predictions of social outcomes than could be provided by measures of the personality of the actor alone. We propose a strategy of assessing our results by using blocked regression where personality variables (e.g., values, self-construals, self-esteem) are entered first, followed by axioms alone or in interaction with personality, when explaining any given outcome. In this way, we can examine if information about the actor's perception of “the elusive situation” (Seeman, 1997) adds predictive power to our usual measures of personality.

So, for example, in examining the role of axioms in daily regulatory processes, Hui and Bond (2007) first used the personality dimension of self-efficacy to explain optimism, mindfulness, approach, and avoidance motivations. They found that axioms, social cynicism in particular, added to self-efficacy in predicting these key regulatory processes. Turning to social behaviors, Bond, Leung, Au, Tong, and Chemonges-Nielson (2004) used values to explain styles of conflict resolution, and then added axioms to the explanatory mix to determine if they added any predictive power. They found that religiosity, for example, increased the likelihood of the respondent choosing both accommodating and competitive styles of managing interdependencies, and one way to explain this ambivalent finding is to assume that religiosity is associated both with agreeableness as well as with the principle-mindedness that may give rise to an unyielding stance.

Of course, the outcome of this successive blocking procedure will depend on the personality variables entered into the first regression. The second block includes the axioms, which will relate to the targeted outcome only to the extent that they are not already covered by the personality measures of block one. The list of potential personality variables is endless, so the normal strategy must be to use the traditionally used personality variables in block one, and then make *a priori* predictions about which axiom dimensions should be involved in generating the social psychological outcome. In this way, we can build a case that social axioms do something more than normal personality constructs; they provide a measure of the social situation the actor generally believes is confronting him or her.

Bringing culture into play. To date, few studies of social process involving axioms have been cross-cultural; values have ruled the cultural seas (e.g., Bond, Leung, & Schwartz, 1992). The logic was simple: values tap motivational processes which push the actor toward outcome states, allowing the researcher to predict a higher incidence of any goal-related behavior. If the value endorsement is stronger in one cultural group than in another, the related social behavior will be stronger or more frequent.

The initial cross-cultural study of axioms proceeded in much the same way. Fu et al. (2004) studied the rated efficacy of various influence strategies in 12 cultures by having practicing managers report on their current management situation. Amongst the various findings was the pan-cultural association of reward for application with the higher-rated effectiveness of persuasive influence, probably because persuasion requires more patience and effort than do other influence tactics. This rated effectiveness varied across the 12 national groups, and its strength was in part explained by the endorsement of reward for application among the members of the national groups. The authors argued that a belief in reward for application emerged from a social setting where individuals were free to assume initiative and supported for doing so. The use of non-coercive means of influencing others was an interpersonal feature of such societies, characterized and measured as low in uncertainty avoidance.

The use of 12 national groups enabled the authors to unpackage a curious finding from their study: the link between fate control and the effectiveness of relationship-based strategies was positive across all respondents but varied significantly across national groups, being weaker in national groups characterized as higher on uncertainty avoidance, as measured by House et al. (1999). Apparently, a higher belief in fate reduces the effectiveness of relationship-based influence when the cultural system provides little sense of security. This finding suggests the importance of examining culture as a moderator of the social processes and allows researchers to explore possible cultural mechanisms by which such leveling and sharpening are achieved.

Such a study anticipates the time when the discipline tests theories of social psychological process multiculturally, so that features of culture may be incorporated into the models and assessed for their impact on that social psychological process. This broadening of scientific sensitivity seems precisely what Pepitone (1976, p. 642) was encouraging and anticipating when he wrote, "It is, in my view, a meta-theoretical axiom that the causes of behavior cannot be clearly and validly specified unless one describes the contours of the system or unit in which the causal processes operate." Culture is "the system or unit" which operates to "educate the attention" (McArthur & Baron, 1983) of its members, such that a given construct operates differently across cultural groups. To predict its impact on a given outcome accurately, one must know not only the level of the construct in that cultural group, the cultural positioning effect, but also its strength of association with the outcome variable, the cultural moderating effect (Bond & van de Vijver, in press).

STAGE #3—QUO VENIS?

Once the polysemous concept of culture comes into play, work must be done to explain the mapping of values and beliefs that it has provided from stage #1 research. As Pepitone (1976, p. 652) has prescribed, the next step in this odyssey is "focused investigations of the origin of selected value-belief systems, involving the collection and integration of knowledge from such areas as the physical environment, economics, social and political history, individual psychology, and evolutionary biology." To meet this requirement, social psychologists must now extract themselves from their too often insular focus on the psychological and begin rummaging around other social scientific disciplines for inspiration and guidance.

Inevitably, we need practice. Our role model in this regard is probably Hofstede, whose 1980 book, *Culture's Consequences*, demonstrated his approach to validating his cultural dimensions of values—immerse yourself in the available multicultural data sets, be they derived from "soft," such as data from individuals, or "hard," for example, ecological, economic, demographic, political, or social sources (see e.g., Georgas & Berry, 1995); correlate your index of culture with these available indices for overlapping units, usually nations; interpret the results. Given our creativity, we social scientists can often extract a plausible theoretical story from these results.

In so doing, we are honoring Pepitone's (1976, p. 652) assumption that, "In general, social psychology belongs in a large biocultural context, in close working relationships with other social sciences and biology." In practice, however, it seems to us that we are often data-fishing, capitalizing on chance, desperately seeking validation for our psychological constructs from measures with a longer history and greater "facticity" than our own. This process is often made even more challenging in that we are dealing with nation-level correlations. These are often puzzling—when the unit of analysis is no longer the person, we social psychologists are in unfamiliar territory; we are inclined to commit what Hofstede (1980, p. 26) labeled the "ecological fallacy," where we interpret culture-level findings as if they reflected individual-level processes, our routine stock-in-trade.

In the case of social axioms, we followed Hofstede's (1980) footsteps and attempted the same sort of validation for our two nation-level dimensions of social axioms (Bond et al., 2004a). It was gratifying to discover that societal cynicism, the nation-level equivalent of social cynicism at the individual level, correlated negatively with national wealth (perhaps cynicism is economically counterproductive!); controlling for wealth, it predicted a country's growth competitiveness index, a

faster pace of life, and lower citizen conscientiousness. Particularly important for us was to distinguish our results for axioms from previous studies on value, in hope that our work would be uncovering cultural territory not already mapped by this well-established construct. Dynamic externality appeared to be somewhat different in this regard from the various value mappings. So, something seemed to be going on, and we strove to explain what that “what” was for both dimensions.

Ultimately, however, this national-level exercise in expanding our disciplinary horizons will be less satisfying than individual-level studies. This is familiar territory, the domain of developmental psychologists. There is considerable developmental work on the origin of values (Smith et al., 2006, chap. 5). Work on social axioms is just beginning: Boehnke (in press), for example, has found that children’s beliefs may be predicted better than chance from knowledge of their parents’ beliefs, even when their parents’ beliefs are at variance with those of their cultural group. Chen, Wu, and Bond (2007) have found that the level of family dysfunction in Hong Kong culture predicts a child’s level of social cynicism and, negatively, that child’s level of reward for application. Although the findings are retrospective and correlational, it makes sense that growing up in a discordant family with less competent parents leaves children believing that power works to the disadvantage of the less powerful and that the investment of resources in any outcome is less likely to prove fruitful.

The influence of contextual variables. Pepitone’s (1976) prescription outlines an approach to assess and explain the effect of culture and build universal theories of social behavior. There is the possibility that under some circumstances, culture, and more specifically, the value-belief systems that represent it, may exert little influence on social behavior. Many contextual variables have been found to override the effects of culture, causing expected cultural differences to disappear (for a discussion, see Leung, Bhagat, Buchan, Erez, & Gibson, 2005). For instance, Morris, Leung, and Iyengar (2004) confirmed a well-known finding that in a conflict situation, Chinese prefer mediation more and adjudication less than do Americans. More interestingly, however, when the other disputant was seen as low in agreeableness and high in emotionality, cultural differences in procedural preferences vanished, and both Chinese and American participants preferred adjudication over mediation. Recently, priming procedures have been shown to be able to alter dominant cultural responses, supposedly through altering the knowledge structures that people use in making causal inferences (Hong, Morris, Chiu, & Benet-Martínez, 2000). Following this line of logic, it is entirely possible that contextual variables can moderate, even eliminate, the influence of axioms on social behavior. Research on this possibility is very promising.

A SUMMING UP

What we call the beginning is often the end
And to make an end is to make a beginning.
The end is where we start from.

T. S. Eliot
Four quartets

Throughout this chapter, we have reiterated Pepitone’s (1976) clarion call for a more culturally engaged social psychology. Perhaps we have overstated the case. However, we believe with Pepitone that culture is the invisible undergirding of social behavior that must be acknowledged, foregrounded, and integrated into our ongoing explorations of social process. So, this chapter was structured around the three components of Pepitone’s prescription for a more valid social psychology and used recent empirical work on the construct of social axioms to illustrate the way in which this prescription of a three-stage approach to building more socially relevant theories can be filled. Specifically, social axioms provide an important way to map the value-belief systems that constitute culture and offer an account of the dynamics underlying a variety of social behaviors. There has not been much research on the antecedents of social axioms, which is a key aspect of stage three in Pepitone’s approach. This is an area that requires more attention in future empirical work.

Obviously, previous work on values, such as that of Schwartz and Bardi (2001), also meets the Pepitone prescription. It seems that perhaps the two most important frameworks for understanding general social behavior, that is, values and beliefs, have by now been broadened and sanctioned for pan-cultural applications, thereby setting the stage for the construction of truly general theories of human behavior. It is exciting that after decades of cross-cultural research, we seem to have arrived at a point where we are able to transcend cultural boundaries and probe culturally universal psychological processes with the aid of pan-cultural value and belief frameworks.

The present argument and procedural blueprint for engaging with culture can, and should, be extended for any construct as, for example, Bandura (2002) has modeled conceptually for self-efficacy and as Chen, Chan, Bond, & Stewart (2006) subsequently demonstrated in their cross-cultural study on depressed affect. We note that most large-scale, cross-cultural projects tend to focus on broad-brush constructs, but we also need to embark on cross-cultural expeditions exploring more narrowly focused constructs. Research on such constructs will supplement the broad-brush frameworks of values and beliefs in the construction of midrange, pan-cultural theories of human behavior. The time has come; the place is here. *Quo vadis?*

To seek, to strive, to find,
and not to yield.

Alfred Lord Tennyson
Ulysses

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REFERENCES

- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review*, 51, 269–290.
- Berger, P. L. (1967). *The sacred canopy: Elements of a sociological theory of religion*. New York: Doubleday.
- Berger, P. L. (1969). *A rumor of angels: Modern society and the rediscovery of the supernatural*. Harmondsworth, England: Penguin.
- Boehnke, K. (in press). Are parents decisive? The intergenerational transmission of social axioms. In K. Leung & M. H. Bond (Eds.), *Advances in research on social axioms*. New York: Springer SBM.
- Bond, M. H. (1995). Doing social psychology cross-culturally: Into another heart of darkness. In G. Brannigan & M. Merrens (Eds.), *The social psychologists: Research adventures* (pp. 186–205). New York: McGraw Hill.
- Bond, M. H., Leung, K., Au, A., Tong, K. K., & Chemonges-Nielson, Z. (2004). Combining social axioms with values in predicting social behaviors. *European Journal of Personality*, 18, 177–191.
- Bond, M. H., Leung, K., Au, A., Tong, K. K., de Carrasquel, S. R., Murakami, F., et al. (2004). Culture-level dimensions of social axioms and their correlates across 41 cultures. *Journal of Cross-Cultural Psychology*, 35, 548–570.
- Bond, M. H., Leung, K., & Schwartz, S. (1992). Explaining choices in procedural and distributive justice across cultures. *International Journal of Psychology*, 27, 211–225.
- Bond, M. H., & van de Vijver, F. J. R. (in press). Making scientific sense of cultural differences in psychological outcomes: Unpackaging the *magnum mysterium*. In D. Matsumoto & F. van de Vijver (Eds.), *Cross-cultural research methods*. New York: Oxford University Press.
- Chen, S. X. H., Bond, M. H., & Cheung, F. M. (2006a). Personality correlates of social axioms: Are beliefs nested within personality? *Personality and Individual Differences*, 40, 509–519.
- Chen, S. X. H., Chan, W., Bond, M. H., & Stewart, S. M. (2006). The effects of self-efficacy and relationship harmony on depression across cultures: Applying level-oriented and structure-oriented analyses. *Journal of Cross-Cultural Psychology*, 37, 643–658.

- Chen, S. X. H., Fok, H. K., Bond, M. H., & Matsumoto, D. (2006b). Personality and beliefs about the world revisited: Expanding the nomological network of social axioms. *Personality and Individual Differences*, 41, 201–211.
- Chen, S. X. H., Wu, W. C. H., & Bond, M. H. (2007). *Linking family dysfunction to suicidal ideation in counseling and psychotherapy: The mediating roles of self-perceptions and social beliefs*. Manuscript submitted for publication.
- Cheung, F. M., Cheung, S. F., Leung, K., Ward, C., & Leong, F. (2003). The English version of the Chinese personality assessment inventory. *Journal of Cross-Cultural Psychology*, 34, 433–452.
- Cheung, M. W. L., Leung, K., & Au, K. (2006). Evaluating multilevel models in cross-cultural research: An illustration with social axioms. *Journal of Cross-Cultural Psychology*, 37, 522–541.
- Cohen, D. (1997). Ifs and thens in cross-cultural psychology. In R. S. Wyer, Jr. (Ed.), *The automaticity of everyday life* (pp. 121–131). Mahwah, NJ: Erlbaum.
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO – FFI)*. Odessa, FL: Psychological Assessment Resources.
- Diener, E., & Diener M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653–663.
- Fu, P. P., Kennedy, J., Tata, J., Yukl, G., Bond, M. H. and 10 other co-authors. (2004). The impact of societal cultural values and individual social beliefs on the perceived effectiveness of managerial influence strategies: A meso approach. *Journal of International Business Studies*, 35, 284–305.
- Feather, N. T. (1982). *Expectations and actions: Expectancy-value models in psychology*. Hillsdale, NJ: Erlbaum.
- Georgas, J., & Berry, J. W. (1995). An ecocultural taxonomy for cross-cultural psychology. *Cross-Cultural Research*, 29, 121–57.
- Hofer, J., & Bond, M. H. (2009). Do implicit motives add to our understanding of psychological and behavioral outcomes within and across cultures? In R. Sorrentino & S. Yamaguchi (Eds.), *The handbook of motivation and cognition across cultures*. Amsterdam: Elsevier.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hong, Y. Y., Morris, M. W., Chiu, C. Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M. & GLOBE Associates. (1999). Cultural influences on leadership and organizations: Project GLOBE. In W. H. Mobley, M. J. Gessner, & V. Arnold (Eds.), *Advances in global leadership* (Vol. 1, pp. 71–114). Stamford, CT: JAI Press.
- Hui, C. M., & Bond, M. H. (2007). *Our worldview moves us: Social axioms, self-efficacy and self-regulation*. Manuscript submitted for publication.
- Kam, C. C. S., & Bond, M. H. (2008). The role of emotions and behavioral responses in mediating the impact of face loss on relationship deterioration: Are Chinese more face-sensitive than Americans? *Asian Journal of Social Psychology*, 11, 175–184.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163–204.
- Koltko-Rivera, M. E. (2004). The psychology of worldviews. *Review of General Psychology*, 8, 3–58.
- Kurman, J., & Ronen-Eilon, C. (2004). Lack of knowledge of a culture's social axioms and adaptation difficulties among immigrants. *Journal of Cross-Cultural Psychology*, 35, 192–208.
- Kruglanski, A. W. (1989). *Lay epistemics and human knowledge: Cognitive and motivational basis*. New York: Plenum.
- Leung, K., Au, A., Huang, X., Kurman, J., Niit, T., & Niit, K. K. (2007). Social axioms and values: A cross-cultural examination. *European Journal of Personality*, 91–111.
- Leung, K., Bhagat, R. S., Buchan, N. R., Erez, M., & Gibson, C. B. (2005). Culture and international business: Recent advances and their implications for future research. *Journal of International Business Studies*, 36, 357–378.
- Leung, K., & Bond, M. H. (1989). On the empirical identification of dimensions for cross-cultural comparisons. *Journal of Cross-Cultural Psychology*, 20, 133–152.
- Leung, K., & Bond, M. H. (2004). Social axioms: A model for social beliefs in multicultural perspective. *Advances in Experimental Social Psychology*, 36, 119–197. San Diego, CA: Elsevier Academic Press.
- Leung, K., & Bond, M. H. (2007). Psycho-logic and eco-logic: Insights from social axiom dimensions. In F. van de Vijver, D. van Hemert, & Y. P. Poortinga (Eds.), *Individuals and cultures in multilevel analysis* (pp. 197–219). Mahwah, NJ: Lawrence Erlbaum Associates.
- Leung, K., & Bond, M. H. (Eds.). (in press). *Advances in research on social axioms*. New York: Springer SBM.

- Leung, K., Bond, M. H., de Carrasquel, S. H., Muñoz, C., Hernández, M., Murakami, F., et al. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology*, 33, 286–302.
- Leung, M. C., Hui, M., & Bond, M. H. (2007). *Does our worldview guide our explanations for daily successes and failures? Linking social axioms to attributional style*. Manuscript submitted for publication.
- Levine, R. V., & Norenzayan, A. (1999). The pace of life in 31 countries. *Journal of Cross-Cultural Psychology*, 30, 178–205.
- Levine, R. V., Norenzayan, A., & Philbrick, K. (2001). Cross-cultural differences in helping strangers. *Journal of Cross-Cultural Psychology*, 32, 543–560.
- Markus, H. R., & Kitayama, S. (2003). Culture, self, and the reality of the social. *Psychological Inquiry*, 14, 277–283.
- Morris, M. W., Leung, K., & Iyengar, S. S. (2004). Person perception in the heat of conflict: Negative trait attributions affect procedural preferences and account for situational and cultural differences. *Asian Journal of Social Psychology*, 7, 127–147.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- McArthur, L. Z., & Baron, R. M. (1983). Toward an ecological theory of social perception. *Psychological Review*, 3, 215–238.
- Pepitone, A. (1976). Toward a normative and comparative biocultural social psychology. *Journal of Personality and Social Psychology*, 34, 641–653.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, Whole No. 609, 1–28.
- Satir, V. (1972). *Peoplemaking*. Palo Alto, CA: Science and Behavior Books.
- Schwartz, S. H. (1992). The universal content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in Experimental Social Psychology* (vol. 25, pp. 1–65). New York: Academic Press.
- Schwartz, S. H. (1994). Beyond individualism and collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, C. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method and applications* (pp. 85–119). Thousand Oaks, CA: Sage.
- Schwartz, S. H., & Bardi, A. (2001). Values hierarchies across cultures: Taking a similarities perspective. *Journal of Cross-Cultural Psychology*, 32, 268–290.
- Seeman, M. (1997). The neglected, elusive situation in social psychology. *Social Psychology Quarterly*, 60, 4–13.
- Smith, P. B., Bond, M. H., & Kağıtçıbaşı, C. (2006). *Understanding social psychology across cultures*. London: Sage.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Yik, M. S. M., & Bond, M. H. (1993). Exploring the dimensions of Chinese person perception with indigenous and imported constructs: Creating a culturally balanced scale. *International Journal of Psychology*, 28, 75–95.

7 Culture Matters

National Value Cultures, Sources, and Consequences

Shalom H. Schwartz

This chapter presents my theory of seven cultural value orientations and applies it to understanding relations of culture to significant societal phenomena. The first section of the chapter explicates my conception of culture, a conception of the normative value system that underlies social practices and institutions. Next, this section describes how the cultural value orientations can be measured. It then presents a validation of the content of the seven value orientations and the structure of relations among them, based on an analysis of data across 75 countries. Brief comparisons of these value orientations with two other dimensional approaches to culture are followed by an analysis that justifies treating countries as cultural units.

The middle section of the chapter uses the seven validated cultural orientations to generate a worldwide graphic mapping of national cultures that reveals eight world cultural regions. The map permits comparison of national cultures with one another on each orientation. To illustrate the meaningfulness of the cultural map, I discuss the distinctive cultural profiles of each world cultural region. The final third of the chapter proposes reciprocal, causal influences between culture, measured by the value orientations, and several social structural variables: the socioeconomic level of countries, their level of political democracy, the competitiveness of their market systems, and their average family size. It also presents empirical analyses to assess these causal influences. Finally, this section analyzes how distance between countries on cultural value orientations affects the flow of investment around the world.

The current approach differs from well-known theories of cultural dimensions (e.g., Hofstede, 2001; Inglehart & Baker, 2000) in deriving the constructs to measure culture from a priori theorizing and then testing the fit of these constructs to empirical data. Moreover, whereas other approaches seek orthogonal dimensions, I assume that correlated dimensions capture culture better because they can express the interdependence of cultural elements. My theory of culture specifies a coherent, integrated system of relations among the seven cultural orientations. These orientations form three correlated bipolar dimensions. Empirical measures of the seven orientations support the coherence of culture by revealing that the cultural profiles of societies rarely exhibit incompatible value emphases.

CULTURAL ORIENTATIONS—BASIC ASSUMPTIONS

The prevailing value emphases in a society may be the most central feature of culture (Hofstede, 1980; Inglehart, 1977; Schwartz, 1999; Weber, 1958; Williams, 1958). These value emphases express conceptions of what is good and desirable, the cultural ideals. The rich complex of meanings, beliefs, practices, symbols, norms, and values prevalent among people in a society are manifestations of the underlying culture.

I view culture as a latent, hypothetical variable that we can measure only through its manifestations. The underlying normative value emphases that are central to culture influence and give a degree of coherence to these manifestations. In this view, culture is outside the individual. It is not located in the minds and actions of individual people. Rather, it refers to the press to which individuals are exposed by virtue of living in particular social systems.

In current psychological terms, this cultural press refers to the primes that individuals encounter more or less frequently in their daily life (e.g., primes drawing attention more to the individual or the group, to the material or the spiritual). This press can also take the form of language patterns (e.g., pronoun usage that emphasizes the centrality of self versus other; Kashima & Kashima, 1998). In sociological terms, this press refers to the expectations encountered more or less frequently when enacting roles in societal institutions (e.g., expectations to memorize or to question in schools, to seek the truth or to win the case in courts). The frequency of particular primes, expectations, and taken-for-granted practices in a society express underlying normative value emphases that are the heart of the culture.

This view of culture contrasts with views of culture as a psychological variable. These views see culture as beliefs, values, behaviors, and/or styles of thinking distributed in a distinctive pattern among the individuals in a society or other cultural group. Culture, as I conceptualize it, influences the distribution of individual beliefs, actions, goals, and styles of thinking through the press and expectations to which people are exposed. A cultural value emphasis on modesty and obedience, for example, finds expression in frequent primes and expectations that induce widespread conformity and self-effacing behavior (e.g., in Thailand). The way social institutions are organized, their policies and everyday practices, constitute primes and expectations that express underlying cultural value emphases. Competitive economic systems, confrontational legal systems, and achievement oriented child-rearing, for example, express a cultural value emphasis on success and ambition (e.g., in the U.S.). Through these social institutions, individuals living in the society are continually exposed to primes and expectations that promote the underlying cultural values.

Prevailing cultural value orientations represent ideals. As such, they promote coherence among the various aspects of culture. Aspects of culture that are incompatible with them are likely to generate tension and to elicit criticism and pressure to change. Cultures are not fully coherent, of course. Subgroups within societies espouse conflicting values. The dominant cultural orientation changes in response to shifting power relations among these subgroups. But change is slow (Hofstede, 2001; Schwartz, Bardi, & Bianchi, 2000). Elements of culture may even persist over hundreds of years (e.g., Kohn & Schooler, 1983; Putnam, 1993). Yet, cultural value orientations do change gradually. Societal adaptation to epidemics, technological advances, increasing wealth, contact with other cultures, wars, and other exogenous factors leads to changes in cultural value emphases.

In order to measure cultural orientations as latent variables, we could analyze the themes of children's stories, proverbs, movies, literature, socialization practices, legal systems, or the ways economic exchange is organized. Such manifestations each describe a narrow aspect of the culture. Moreover, many are the product of particular subgroups within society, aimed at particular audiences or negotiated among elites. When researchers try to identify culture by studying these types of manifestations, what they seek, implicitly or explicitly, are underlying value emphases (Weber, 1958; Williams, 1968). Hence, studying value emphases directly is an especially efficient way to capture and characterize cultures.

SEVEN CULTURAL VALUE ORIENTATIONS

All societies confront certain basic issues in regulating human activity (Kluckhohn & Strodtbeck, 1961). Cultural value emphases evolve and change over time as societies generate preferred

responses to these problems.* I use a set of basic societal problems chosen for their centrality for societal functioning to derive dimensions on which to compare cultures. Schwartz (1994) provides a more detailed, early discussion of why I chose these dimensions. The cultural value orientations at the poles of these dimensions are Weberian ideal-types; actual cultural groups are arrayed along the dimensions. I derived these orientations from *a priori* theorizing about possible societal responses to the key problems.

The first problem is to define the nature of the relations and boundaries between the person and the group: To what extent are people autonomous versus embedded in their groups? I label the polar locations on this cultural dimension *autonomy* versus *embeddedness*. In autonomy cultures, people are viewed as autonomous, bounded entities. They are encouraged to cultivate and express their own preferences, feelings, ideas, and abilities, and to find meaning in their own uniqueness. There are two types of autonomy: *Intellectual autonomy* encourages individuals to pursue their own ideas and intellectual directions independently. Examples of important values in such cultures include broadmindedness, curiosity, and creativity. *Affective autonomy* encourages individuals to pursue affectively positive experience for themselves. Important values include pleasure, exciting life, and varied life.

In cultures with an emphasis on *embeddedness*, people are viewed as entities embedded in the collectivity. Meaning in life is expected to come largely through social relationships, through identifying with the group, participating in its shared way of life, and striving toward its shared goals. Embedded cultures emphasize maintaining the status quo and restraining actions that might disrupt in-group solidarity or the traditional order. Important values in such cultures are social order, respect for tradition, security, obedience, and wisdom.[†]

The second societal problem is to guarantee that people behave in a responsible manner that preserves the social fabric. That is, people must engage in the productive work necessary to maintain society rather than compete destructively or withhold their efforts. People must be induced to consider the welfare of others, to coordinate with them, and thereby manage their unavoidable interdependencies. The polar solution labeled cultural *egalitarianism* seeks to induce people to recognize one another as moral equals who share basic interests as human beings. People are socialized to internalize a commitment to cooperate and to feel concern for everyone's welfare. They are expected to act for the benefit of others as a matter of choice. Important values in such cultures include equality, social justice, responsibility, help, and honesty.

The polar alternative labeled cultural *hierarchy* relies on hierarchical systems of ascribed roles to insure responsible, productive behavior. It defines the unequal distribution of power, roles, and resources as legitimate and even desirable. People are socialized to take the hierarchical distribution of roles for granted, to comply with the obligations and rules attached to their roles, to show deference to superiors, and to expect deference from subordinates. Values of social power, authority, humility, and wealth are highly important in hierarchical cultures.

The third societal problem is to regulate people's treatment of human and natural resources. The cultural response to this problem labeled *harmony* emphasizes fitting into the social and natural world, trying to appreciate and accept rather than to change, direct, or exploit. Important values in harmony cultures include world at peace, unity with nature, protecting the environment, and accepting one's portion. *Mastery* is the polar cultural response to this problem. It encourages active self-assertion in order to master, direct, and change the natural and social environment to attain group or personal goals. Values such as ambition, success, daring, self-sufficiency, and competence are especially important in mastery cultures.

* There is little research on why particular societies generate particular preferences. History, ecology, technology, and various chance factors undoubtedly play a role (see, e.g., Diamond, 1996; Schwartz, 2008; Schwartz & Ros, 1995). Below, I present a few specific explanations when discussing the culture profiles of countries that diverge from their neighbors and when analyzing reciprocal influences of culture and social structure on one another.

[†] This dimension shares some elements with the individualism-collectivism construct. I contrast them below.

In sum, the theory specifies three bipolar dimensions of culture that represent alternative resolutions to each of three problems that confront all societies: embeddedness versus autonomy (both intellectual and affective), hierarchy versus egalitarianism, and mastery versus harmony (see Figure 7.1). A societal emphasis on the cultural orientation at one pole of a dimension typically accompanies a de-emphasis on the polar type, with which it tends to conflict. Thus, as we will see below, American and Israeli culture tend to emphasize mastery and affective autonomy and to give little emphasis to harmony. And the cultures of Iran and China emphasize hierarchy and embeddedness but not egalitarianism and intellectual autonomy.

The cultural value orientations are also interrelated based on compatibility among them. That is, because certain orientations share assumptions, they generate expectations that are similar. For example, egalitarianism and intellectual autonomy share the assumption that people can and should take individual responsibility for their actions and make decisions based on their own personal understanding of situations. And high egalitarianism and intellectual autonomy usually appear together, as in Western Europe. Embeddedness and hierarchy share the assumption that a person's roles in and obligations to collectivities are more important than unique ideas and aspirations. And embeddedness and hierarchy are both high in the Southeast Asian cultures I have studied.

The shared and opposing assumptions inherent in cultural values yield a coherent circular structure of relations among them. The structure reflects the cultural orientations that are compatible (adjacent in the circle) or incompatible (distant around the circle). As noted, this view of cultural dimensions as forming an integrated, non-orthogonal system distinguishes my approach from others.

MEASURING CULTURAL VALUE ORIENTATIONS

Recall that cultural value orientations find expression in the norms, practices, and institutions of a society. The cultural value orientations help to shape the contingencies to which people must adapt in their daily lives. They help to determine the individual behaviors, attitudes, and value preferences that are likely to be viewed as more or less legitimate in common social contexts, to be encouraged or discouraged. Members of the dominant group in a society share many value-relevant experiences. They are socialized to take for granted the implicit values that find expression in the workings of

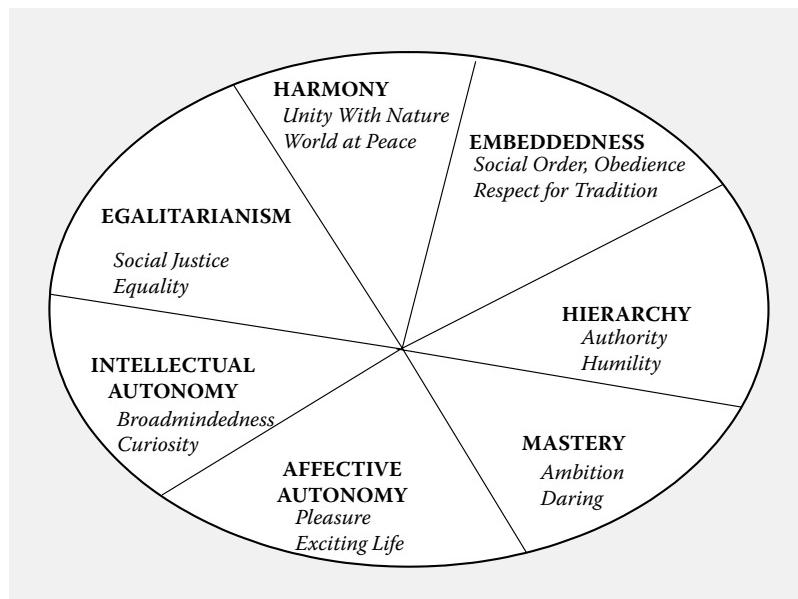


FIGURE 7.1 Cultural value orientations: Theoretical structure.

societal institutions. Culture is an external press (set of primes and demands) to which each individual is exposed in a unique way, depending upon her location in society. This press affects the value priorities of each societal member. No individual experiences the full press of culture, nor can anyone be fully aware of the latent culture of his society.

Of course, each individual has unique experiences and a unique genetic makeup and personality that give rise to individual differences in personal values within societies. Critically, however, these individual differences affect the variance in the importance that group members attribute to different values but not the *average* importance. The average reflects the impact of exposure to the same culture. Hence average individual value priorities point to the prevalent cultural value orientations (cf. Hofstede, 2001; Inglehart, 1997).*

I operationalize the value priorities of individuals with the Schwartz Value Survey (SVS) (Schwartz, 1992; Schwartz & Boehnke, 2004) that includes 56 or 57 value items. These abstract items (e.g., social justice, humility, creativity, social order, pleasure, ambition) are each followed in parenthesis by a phrase that further specifies their meaning. Respondents rate the importance of each “as a guiding principle in *my* life.” Respondents from cultural groups on every inhabited continent have completed the survey, anonymously, in their native language.[†] To avoid a Western bias, the SVS took items from sources around the world: value surveys, philosophical and religious texts, and scholars’ recommendations. The objective was to include all motivationally distinct values likely to be recognized across cultures, not to capture values unique to particular cultures. Growing evidence suggests that the survey overlooks no major motivationally distinct values (de Clercq, 2006; Schwartz, 2005a).

In order to use values in cross-cultural comparisons, their meanings must be reasonably similar across cultures. Separate multidimensional scaling analyses of the value items within each of 70 countries established that 46 of the 57 items have reasonably equivalent meanings across countries (Schwartz, 2006; Fontaine, Poortinga, Delbeke, & Schwartz, 2008). These 46 items constituted the item pool for assessing the culture-level theory. They were selected because of their meaning equivalence across cultures, but with no connection to the theory of cultural orientations. In order to find a priori markers for each of the seven cultural value orientations, I sought items whose content expressed the emphasis of each orientation. I was able to find three to eight items to serve as markers of each orientation.

EMPIRICAL EVIDENCE FOR SEVEN CULTURAL VALUE ORIENTATIONS

The latest assessment of the validity of the seven cultural value orientations and the relations among them employs data gathered from 1988 to 2005. Participants were 88 samples of schoolteachers (K–12) from 64 cultural groups, 132 samples of college students from 77 cultural groups, and 16 representative regional or national samples from 13 countries. Most samples came from the dominant, majority group. In some heterogeneous countries, separate samples were obtained from large minority groups. The following analyses use data from 55,022 respondents from 72 countries and 81 different cultural groups.

For each sample, we computed the mean rating of each value item. This treats the sample as the unit of analysis. We then correlated item means across samples. The correlations reflect the way values co-vary at the sample (country) or culture level, not the individual level.[‡] They are statistically

* Asking individuals how important they think different values are in their society and averaging these ratings would yield a measure of perceived culture. Perceived culture is interesting in itself and has its own correlates (Fischer, 2006). Because culture is latent, however, individuals may be poor informants about their culture.

[†] I am indebted to 110 collaborators for their aid in gathering the data.

[‡] For a detailed discussion of why variables aggregated across individuals, such as mean national levels of value importance, reflect the dynamics of social interaction and organization of social units no less well than such structural variables as communication networks or such global products as laws, see Liska (1990).

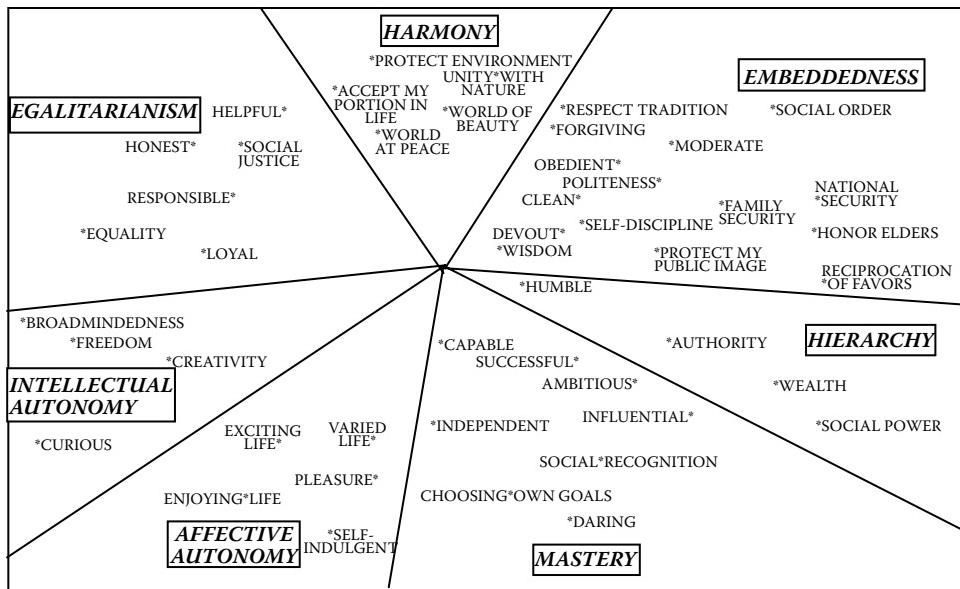


FIGURE 7.2 Culture level MDS-233 samples, 81 cultural groups.

independent of the correlations across individuals within any sample. A confirmatory multidimensional scaling analysis (Borg & Groenen, 2005; Guttman, 1968) of the correlations between the sample means assessed whether the data support the seven cultural orientations and the relations among them.

The two-dimensional projection in Figure 7.2 portrays the pattern of intercorrelations among values, based on the sample means. A point represents each value item such that the more positive the correlation between any pair of value items, the closer they are in the space; and the less positive their correlation, the more distant. The theoretical model implies a circular, quasi-circumplex in which each orientation is close to (correlates positively with) those with which it is compatible and distant from (correlates negatively with) those with which it conflicts (as in Figure 7.1). Confirming that the orientations are discriminated depends upon finding bounded regions of marker items in the spatial projection that reflect the content of each orientation. Confirming that the orientations relate as theorized depends upon finding that the bounded regions of the orientations form an ordered circle that matches the theorized order.

Comparing Figure 7.2 with Figure 7.1 reveals that the observed content and structure of cultural value orientations fully support the theorized content and structure. This analysis clearly discriminates the seven orientations: The value items selected *a priori* to represent each value orientation are located within a unique wedge-shaped region of the space. Equally important, the regions representing each orientation form the integrated cultural system postulated by the theory: They emanate from the center of the circle, follow the expected order around the circle, and form the poles of the three broad cultural dimensions. Note: the three cultural dimensions are not factors. The dimensions are vectors in the space that connect the opposing orientations.*

* Analyses of relations among values at the individual level yield a different structure, one that fits the ten motivationally distinct values that characterize individual differences (Schwartz, 1992). For example, humility and social power correlate positively in the culture-level analysis because, in a society organized around the legitimacy of hierarchy, members must accept that they are inferior to some as well as superior to others. At the individual level, these two values correlate negatively because the simultaneous pursuit of humility and of social power is contradictory for individuals (Schwartz, 1999). This reinforces the view that cultures and individuals are distinct entities and that different principles organize the normative cultural systems of societies and the motivational value systems of individuals.

The score for each cultural value orientation in a country is the mean importance rating of the value items that represent it. To control for individual as well as group biases in use of the response scales, I centered each individual respondent's ratings of the value items on his or her mean rating of all of the items prior to computing these scores.* To increase the reliability of country scores based on the SVS data, I combined the means of the teacher and student samples in the 52 countries in which both types of samples were available. In 21 countries, only teacher or student data were available. For these countries, I estimated the missing sample means by regression.

Comparison With the Hofstede and Inglehart Dimensions

Having established the validity of the cultural value orientations and dimensions, I briefly compare them to Hofstede's (2001) and Inglehart's (Inglehart & Baker, 2000) widely cited cultural dimensions. For more detailed comparisons, see Schwartz (2004) on Hofstede and Schwartz (2007a) on Inglehart. Here, I discuss only those dimensions that would seem to overlap conceptually to a considerable degree.

My autonomy/embeddedness and Hofstede's individualism/collectivism both concern relations between the individual and the collective. However, autonomy/embeddedness contrasts openness to change with maintaining the status quo; individualism/collectivism does not. More important, theorists associate individualism with the self-interested pursuit of personal goals (e.g., Kağıtçıbaşı, 1997; Triandis, 1995), although nothing in the Hofstede index measures selfishness. Cultural autonomy encourages uniqueness but not selfishness. In my view, culture could not encourage individual selfishness among group members who interact regularly. This would be detrimental to the smooth running of families and of most societal institutions. Rather, culture combats selfishness (cf. Campbell, 1975). Some orientations combat it more (e.g., egalitarianism) and others less (e.g., mastery).

Scores on individualism for 57 countries (from Hofstede, 2001, pp. 500–502) correlated .61 with an index of autonomy/embeddedness formed by subtracting the embeddedness score from the mean of the affective and intellectual autonomy scores. Although this suggests considerable empirical overlap between the two dimensions, they share only 37 percent of their cross-national variance. They order many countries quite differently. For example, the U.S. is first and Venezuela last among the 57 countries on individualism, but the U.S. is 30th on autonomy/embeddedness and Venezuela is 33rd. Individualism also correlated positively, though more weakly, with egalitarianism and harmony. This implies that individualism includes elements from egalitarianism and harmony, contrary to common interpretations of this dimension. Individualism/collectivism is apparently a catchall dimension. Using more refined dimensions makes it possible to identify important cultural differences missed with this broad dimension (e.g., see differences between the U.S. and West Europe, below).

The hierarchy pole of the egalitarianism/hierarchy dimension and Hofstede's power distance both concern legitimizing social inequality. Key elements of egalitarianism are absent from low-power distance, however. These include the societal emphasis on viewing individuals as morally equal and expecting them to internalize commitments to the welfare of others and to cooperate voluntarily with them. Power distance and egalitarianism/hierarchy share only 16 percent of their variance across 57 countries.

My mastery and Hofstede's masculinity both emphasize assertiveness and ambition. Hofstede contrasts masculinity to femininity (tenderness, care and concern for others), implying that masculinity neglects or rejects concern for others. I contrast mastery to harmony (being in tune with others and the environment). Mastery calls for an active, even disruptive, stance, but it does not imply selfishness. Empirically, mastery and masculinity are independent ($r = .15$). Harmony and uncertainty avoidance both idealize a harmonious order. However, harmony stresses that people and nature should exist comfortably together without assertion of control. In contrast, uncertainty

* Schwartz (1992; 2006) further explains how to perform the scale-use correction and why it is necessary.

avoidance emphasizes controlling ambiguity and unpredictability. Their empirical correlation ($r = .24$) suggests little overlap.

In sum, the Hofstede dimensions show several conceptual similarities with my orientations. However, even the most closely related dimensions differ conceptually and empirically in significant ways. Next, consider the Inglehart dimensions.

Inglehart's (e.g., Inglehart & Baker, 2000) secular-rational/tradition dimension centrally concerns orientations toward authority. Like autonomy/embeddedness, it concerns the degree to which individuals find meaning through their group ties and are submerged in all-encompassing structures of tight mutual obligations or are free to develop independence of thought and action. Although the two dimensions share considerable variance (36 percent) across 63 countries, they array nations somewhat differently. Religious tradition is central to scores on the Inglehart dimension but has little weight in autonomy/embeddedness. This explains why former communist countries (e.g., Bulgaria, China, and Estonia) are high both on the secular-rational dimension and on embeddedness. Decades of communist rule reduced the importance of religion, but the culture in these countries still expects people to find meaning through in-group ties. Thus, the two dimensions capture different aspects of the culture in these countries.

Inglehart's self-expression/survival dimension contrasts societies in which people primarily focus on economic and physical security (survival) with societies in which security is high and quality-of-life issues are central (self-expression). Like autonomy/embeddedness, this dimension concerns the degree to which individuals should be encouraged to express their uniqueness and independence in thought, actions, and feelings. The two dimensions share 41 percent of their variance and array nations quite similarly, with few major differences.

Like egalitarianism/hierarchy, self-expression/survival concerns equality among groups, tolerance, and trust. The two dimensions share 35 percent of their variance, but they rank many countries differently. Japan, for example, is very low on egalitarianism (versus hierarchy) but moderately high on self-expression (versus survival). High hierarchy captures the fact that Japanese culture organizes relations of interdependency in role-based hierarchical terms. High self-expression may reflect the consequences for culture of Japan's wealth, high education, and advanced service economy. Thus, these two dimensions capture different, not necessarily contradictory, aspects of culture.

In sum, the two Inglehart dimensions show considerable overlap with two of mine. This is striking, given large differences in the items and scales that measure them and in the types of samples studied. It strongly supports the idea that these dimensions capture real, robust aspects of cultural difference. On the other hand, substantially divergent rankings of some countries on the overlapping dimensions make clear that each also captures unique aspects of culture. Moreover, my harmony/mastery dimension taps aspects of culture not measured by the Inglehart dimensions. As we will see, harmony/mastery is the only cultural dimension not strongly related to socio-economic development.

In general, the cultural value orientations emphasize the normative aspect of culture more than the Hofstede and Inglehart dimensions do. The orientations specify the ways people are expected to think, feel, and act in order for society to function smoothly. Scores on the orientations reflect the value-based normative preferences that are used to justify social and organizational policies and that are implicit in the ways societal institutions are organized. This normative element is weaker or absent in most of the Hofstede and Inglehart dimensions.

COUNTRIES AS A CULTURAL UNIT

Countries are rarely homogeneous societies with a unified culture. Inferences about national culture may depend on which subgroups are studied. The research on my cultural dimensions with the SVS used teacher and student samples rather than representative national samples. This makes it important to establish that scores derived from different types of samples order countries in the same way on the dimensions. I assessed consistency in the relative scores of countries on the seven cultural orientations by comparing three types of subgroups. First, I compared younger and older

respondents by splitting the teacher samples into those 37 years or younger and those older. The mean correlation between the national scores of these two subgroups was .91 (range .96 to .78). Second, the mean correlation for male versus female students across 64 countries was .90 (range .96 to .82). Third, the mean correlation for teachers versus students across 53 countries was .81 (range .90 to .57).

The correlations are weaker in the third comparison because the subgroups compared differed in both age and occupation. This suggests that closely matching the characteristics of the samples from each country is critical when comparing national cultural orientations. Inglehart (2001) reported similarly high correlations across countries for his two dimensions when comparing subgroups split by income and by rural/urban residence. Taken together, these findings support the view that countries are meaningful cultural units.

MAPPING CULTURAL DIFFERENCES AROUND THE WORLD

This section examines the locations in cultural space of 77 cultural groups, based on the combined teacher and student samples. I standardized each group's scores on the seven cultural orientation scores around its own mean score. This gave each group a cultural profile that reflects the relative importance of the seven value orientations. I then computed a matrix of cultural distances between all pairs of groups. The distance was the sum of the absolute differences between the pair of groups on each of the seven value orientations. For example, the respective scores for China and the U.S. were harmony 3.8/3.5, embeddedness 3.7/3.7, hierarchy 3.5/2.6, mastery 4.4/4.2, affective autonomy 3.3/3.9, intellectual autonomy 4.2/4.2, and egalitarianism 4.2/4.7. This yields a profile distance of 2.5.

Next, I used multidimensional scaling (MDS) to generate a two-dimensional spatial representation of the distances among all the groups (see Figure 7.3). Finally, I drew vectors (optimal regression lines) in the MDS space, which indicate the direction of increasing scores for each of the seven orientations ("co-plot" technique; Goldreich & Raveh, 1993). Figure 7.3 shows the full vector for embeddedness from lower left to upper right. Dropping a perpendicular line from the location of a cultural group to the embeddedness vector reveals that group's embeddedness score relative to all

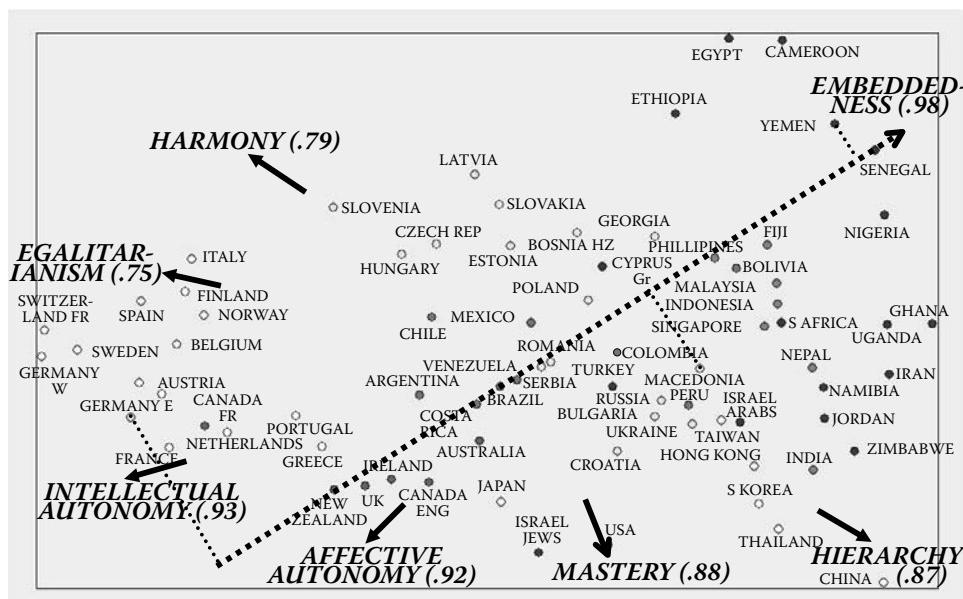


FIGURE 7.3 Co-plot map of 77 national groups on seven cultural orientations.

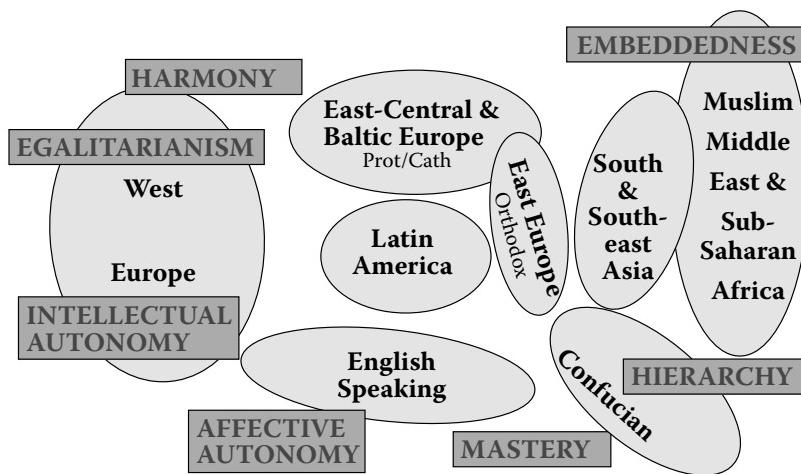


FIGURE 7.4 Cultural map of world regions.

other groups. Perpendicular lines on Figure 7.3 indicate that Yemen is very high on embeddedness, Macedonia moderately high, and East Germany very low. For each of the other orientations, short arrows indicate the angles of their vectors. The extensions of these vectors go through the center of gravity of Figure 7.3, just above Romania.

The correlation between the actual scores of the cultural groups on an orientation and their locations along the vector that represents the orientation appears in parentheses next to the name of the orientation. The substantial magnitude of these correlations (range .75 to .98) indicates that the locations of most samples provide quite an accurate picture. This is because most countries exhibit a profile that reflects the coherence of the theoretical structure of cultural dimensions: Cultural profiles high on one polar value orientation are typically low on the opposing polar orientation and show similar levels of relative importance for adjacent orientations. For example, Chinese culture, compared to all the others, is very high on both hierarchy and the adjacent mastery orientation but very low on the opposing egalitarianism and adjacent harmony orientations.*

Consider two examples of how Figure 7.3 represents the cultural profile of a country on all seven cultural orientations. Culture in Sweden (upper left) strongly emphasizes harmony, intellectual autonomy, and egalitarianism, and moderately emphasizes affective autonomy. The cultural emphasis on embeddedness is low, and it is very low for mastery and hierarchy. In contrast, in Zimbabwe (lower right), mastery, embeddedness, and hierarchy are highly emphasized, affective autonomy moderately emphasized, and egalitarianism, intellectual autonomy, and harmony receive little cultural emphasis.

Drawing boundary lines on the spatial map of the 77 cultural groups reveals eight transnational cultural regions. Figure 7.4 highlights these cultural regions: West European, English-speaking, Latin American, East Central and Baltic European, Orthodox East European, South Asian, Confucian influenced, and African and Middle Eastern. Only eight cultures are located outside their expected region. Three of these are from the culturally diverse Middle East (Turkey, Greek

* Japan presents a striking exception. Seven samples from around Japan reveal an unusual combination of cultural elements. The culture strongly emphasizes hierarchy and harmony but not embeddedness, which is adjacent to them, and it strongly emphasizes intellectual autonomy but not the adjacent egalitarianism. Thus, the location of Japan on the map is necessarily misleading. This unusual combination would not surprise many scholars of Japanese culture (e.g., Benedict, 1974; Matsumoto, 2002). It points to a culture in tension and transition.

Cyprus, Israel Jews). The eight cultural regions overlap almost completely with the cultural regions Inglehart and Baker (2000) identified using their two dimensions. They also show striking parallels with the zones Huntington (1993) specified based on qualitative analysis.

Most regions reflect some geographical proximity. Hence, some of the cultural similarity within regions is doubtless due to diffusion of values, norms, practices, and institutions across national borders (Naroll, 1973). But shared histories, language, religion, development, and other factors go beyond geography.* Consider three examples of the sensitivity of cultural orientations to such factors. Turkey is higher on egalitarianism and autonomy and lower on hierarchy and embeddedness than its Middle Eastern Muslim neighbors are. This probably reflects its secular democracy, historical engagement with East Europe, and recent struggles to join the West. French Canada is closer to West Europe and particularly France than to English-speaking Canada, reflecting its historic and linguistic roots. East Germany is close to West Germany rather than part of the East European region, reflecting shared language, history, and traditions not obliterated by communist rule. Israeli Jews are between East Europe, West Europe, and the Muslim Middle East, and near the U.S., reflecting its immigrant sources and its political and economic ties to the U.S.

Next, we examine the cultural orientations that characterize each distinct cultural region. Table 7.1 provides means scores on the seven orientations for each cultural region and indicates significant differences.

West Europe. West European culture is the highest of all regions on egalitarianism, intellectual autonomy and harmony, and the lowest on hierarchy and embeddedness. This profile holds even after controlling for national wealth. Thus, factors other than wealth and its correlates apparently influence the culture critically. This cultural profile is compatible with the presence in the region of democratic, welfare states with especially high concern for the environment (cf. Ester, Halman, & Seuren, 1994).

Although West European countries share a broad culture when compared with other world regions, there is substantial cultural variation within the region too. Greek culture is the least typical of Western Europe—higher on mastery and lower on intellectual autonomy and egalitarianism than the others are. French and Swiss French cultures display a relatively high hierarchy orientation for Western Europe, together with the usual high affective and intellectual autonomy. They apparently retain a somewhat hierarchical orientation, despite their emphasis on autonomy. Detailed analysis of such variations is beyond the scope of this chapter, but cultural differences within regions are meaningful.

English speaking. The culture of this region is especially high in affective autonomy and mastery and low in harmony and embeddedness, compared with the rest of the world. American culture differs from that in other English-speaking countries by emphasizing mastery and hierarchy more and intellectual autonomy, harmony, and egalitarianism less. The American profile points to a culture that encourages an assertive, pragmatic, entrepreneurial, and even exploitative orientation to the social and natural environment.

Cultural differences in the West. There is a widespread view of Western culture as individualist, but the more complex conception of cultural orientations reveals striking differences within the West. Comparing 22 West European samples with six U.S. samples, Schwartz and Ros (1995) found large and significant differences on six of the orientations. Egalitarianism, intellectual autonomy, and harmony were higher in Western Europe, mastery, hierarchy, and embeddedness higher in the U.S. Using the term “individualist” to describe either of these cultures distorts the picture these analyses reveal.

Cultural orientations in Western Europe are individualist in the sense that they emphasize intellectual and affective autonomy and de-emphasize hierarchy and embeddedness. But West European priorities contradict conventional views of individualism in emphasizing egalitarianism and harmony

* Schwartz (2008) and Siegel, Licht, and Schwartz (2007) discuss historical sources of national difference on the embeddedness and egalitarianism dimensions.

TABLE 7.1
Mean Scores on Cultural Value Orientation for Each of the World Cultural Regions

Cultural Orientations

Cultural Regions	Harmony	Egalitarianism	Intellectual Autonomy	Affective Autonomy	Mastery	Hierarchy	Embeddedness
West European	4.33 _D	5.03 _E	4.79 _D	3.98 _C	3.89 _A	1.84 _A	3.29 _A
East Central European (Catholic, Protestant)	4.25 _{CD}	4.48 _B	4.47 _C	3.50 _B	3.85 _A	2.06 _{AB}	3.73 _B
East European (Orthodox, Muslim)	3.98 _{AB}	4.43 _{AB}	4.26 _B	3.42 _B	3.93 _{AB}	2.35 _{BC}	3.89 _B
Latin American	4.05 _{BC}	4.84 _D	4.33 _{BC}	3.20 _B	3.92 _{AB}	2.37 _C	3.77 _B
English Speaking	3.83 _{AB}	4.84 _D	4.48 _{BC}	4.04 _C	4.04 _{BC}	2.24 _B	3.48 _A
Confucian	3.84 _{AB}	4.35 _{AB}	4.31 _{BC}	3.44 _B	4.11 _C	2.98 _E	3.75 _B
South-East Asian	3.91 _{AB}	4.52 _{BC}	3.98 _A	3.19 _B	3.94 _{ABC}	2.71 _{DE}	4.16 _C
Africa & Middle East	3.85 _A	4.53 _B	3.93 _A	2.85 _A	3.91 _{AB}	2.56 _{CD}	4.25 _C

Note: Regions with different subscripts in a column differ significantly from one another, $p < .05$, 2-tailed.

West Europe: Austria, Belgium, French Canada, Cyprus, Denmark, Finland, France, East & West Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland

East-Central Europe: Croatia, Czech Republic, Estonia, Latvia, Hungary, Poland, Romania, Slovenia, Slovakia

East Europe: Bosnia-Herzegovina, Bulgaria, Georgia, Macedonia, Russia, Serbia, Ukraine

Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, Venezuela

English Speaking: Australia, English Canada, Ireland, New Zealand, United Kingdom, United States

Confucian: China, Hong Kong, Japan, South Korea, Taiwan, Thailand

South-East Asia: Fiji, India, Indonesia, Malaysia, Nepal, Philippines, Singapore

Africa & Middle East: Cameroon, Egypt, Ethiopia, Ghana, Iran, Israel Arab, Jordan, Namibia, Nigeria, Senegal, South Africa, Turkey, Uganda, Yemen, Zimbabwe

Not included: Israel Jews

and de-emphasizing mastery. That is, this culture calls for selfless concern for the welfare of others and fitting into the natural and social world rather than striving to change it through assertive action. This opposes the usual understanding of individualism.

Cultural emphases in the U.S. show a different but equally complex pattern: The individualistic aspect of American value orientations is the emphasis on affective autonomy and mastery at the expense of harmony. This may be the source of the stereotypical view of American culture as justifying and encouraging egotistic self-advancement. But this is not prototypical individualism, because intellectual autonomy is relatively unimportant. Moreover, both hierarchy and embeddedness, the orientations central to collectivism, are high compared with Western Europe. This fits the emphasis on religion, conservative family values, and punitiveness toward deviance in America noted by analysts of American culture (e.g., Bellah, Madsen, Sullivan, Swidler, & Tipton, 1986; Etzioni, 1993).

Confucian. This region also exhibits a pragmatic, entrepreneurial orientation. However, this orientation combines a heavy emphasis on hierarchy and mastery with a rejection of egalitarianism and harmony. It emphasizes embeddedness more than all the European and American cultures. This cultural profile is consonant with many analyses of Confucian culture (e.g., Bond, 1996).

Africa and the Middle East. The cultural groups from sub-Saharan and North Africa and the Muslim Middle East form a broad region that does not break down into clear sub-regions. These cultures emphasize finding meaning in life largely through social relationships and protecting group solidarity and the traditional order (high embeddedness), rather than cultivating individual uniqueness (low affective and intellectual autonomy). This fits well with the conclusions of studies of the Middle East (e.g., Lewis, 2003) and sub-Saharan Africa (e.g., Gyekye, 1997). There is a great deal of variation within the region, however, on all but embeddedness, egalitarianism, and intellectual autonomy.

South Asia. The culture of this region emphasizes fulfilling one's obligations in a hierarchical system—obeying expectations from those in roles of greater status or authority and expecting humility and obedience from those in inferior roles (high hierarchy, low egalitarianism). As in Africa, here social relationships rather than autonomous pursuits are expected to give meaning to life (high embeddedness, low autonomy). With the exception of India's high rating on mastery, all the groups are culturally quite homogenous. The variety of dominant religions (Hinduism, Roman Catholicism, Islam, Buddhism, Methodist Protestantism) does not produce cultural heterogeneity on the basic orientations.

East-Central and Baltic Europe versus East and Balkan Europe. Both of these cultural regions are low on embeddedness and hierarchy compared with Africa and the Middle East and Southeast Asia, but higher on these cultural orientations than Western Europe. The East-Central European and Baltic culture is somewhat higher in harmony and intellectual autonomy and lower in hierarchy than the Balkan and more Eastern culture.* The Baltic and East-Central states have stronger historical and trade links to Western Europe, were penetrated less by totalitarian communist rule, and threw it off earlier. Like Western Europe, they are Roman Catholic or Protestant. These factors help to explain why their profile is closer to that of Western Europe. In contrast, the countries in the East European and Balkan cultural region had weaker ties to the West, historical links to the Ottoman empire, were deeply penetrated by communism, and practice more conservative and in-group oriented Orthodox religions (Zemov, 1961, 1971). These factors help to explain their relatively low egalitarianism and intellectual autonomy and their higher hierarchy.

Latin America. Finally, the culture of the Latin American region is close to the worldwide average in all seven orientations. Moreover, excepting Bolivia and Peru, whose populations have been least exposed to European culture, this region is particularly homogeneous culturally. Some researchers describe Latin American culture as collectivist (e.g., Hofstede, 2001; Triandis, 1995). Compared with Western Europe, this seems to be so. Latin America is higher in hierarchy and embeddedness, presumably the main components of collectivism, and lower in intellectual autonomy, presumably the main component of individualism. The opposite is the case, however, when we compare Latin American to African, Middle Eastern, and South Asian cultures. This example highlights the importance of the frame of comparison. The culture of a group may look different when viewed in a worldwide perspective than when inferred from narrower comparisons.

RECIPROCAL, CAUSAL INFLUENCES BETWEEN CULTURAL VALUE ORIENTATIONS AND SOCIAL STRUCTURE

Of the hundreds of interesting antecedents, correlates, and consequences of national differences in the cultural value orientations, this chapter can touch only on a few. I discuss four social structural variables that relate to culture through reciprocal causality.

SOCIOECONOMIC LEVEL

Economic development increases individual resources, reducing dependency on the extended family or group. This gives people opportunities and means to make choices enabling them to pursue

* Georgia and Bosnia-Herzegovina are exceptions that require further study.

autonomy and take personal responsibility. From a societal point of view, economic development makes it desirable to cultivate individual uniqueness and responsibility. Societies require diverse skills, knowledge, interests, and innovativeness to cope successfully with the various tasks, new challenges, and speed of change that accompany development. Hence, economic development fosters cultural autonomy and egalitarianism and curbs embeddedness and hierarchy. But culture also influences development. Cultures that persist in emphasizing embeddedness and hierarchy stifle the individual initiative and creativity needed to develop economically. Numerous theorists explicate likely reciprocal relations between culture and development (e.g., Hofstede, 2001; Inglehart, 1997; Triandis, 1995; Welzel, Inglehart, & Klingemann, 2003).

The first three rows of Table 7.2 present correlations of the cultural dimensions with indicators of socioeconomic level. In order to simplify the empirical presentations, I use the three polar value dimensions formed by the seven cultural orientations rather than the separate orientations. Cultural autonomy and egalitarianism correlate positively and strongly with average individual income ten years earlier, contemporaneously, and nine years later. By implication, cultural embeddedness and hierarchy correlate strongly negatively with these indicators of wealth. Harmony/mastery has weak links to development. Many other indicators of development (e.g., education level, life expectancy, energy use, telephones, literacy) exhibit very similar associations with the cultural orientations.

In Schwartz (2007a), I reported a path analysis that examined the possible causal influence of cultural value orientations on socioeconomic development. I used an index of development in 73 countries in 1993 to predict cultural value orientations and level of democracy. The 1993 index substantially predicted level of development in 2004 ($\beta=.73$) as well as the circa 1995 indicators

TABLE 7.2
Correlations of Cultural Value Dimensions With Socioeconomic Development, Democratization, and Household Size, Controlled for GDPpc 1985

	N	Autonomy Minus Embeddedness	Egalitarianism Minus Hierarchy	Harmony Minus Mastery
Socioeconomic Development				
1985 GDPpc	75	0.59 ¹	0.41 ¹	0.26 ²
1995 GDPpc	75	0.74 ¹	0.47 ¹	0.20
2004 GNIpc	75	0.76 ¹	0.53 ¹	0.21
Democratization				
1985 Freedom House Index	75	0.55 ¹ (.40 ¹)	0.43 ¹ (.30 ²)	-0.02 (-.14)
1995 Freedom House Index	75	0.73 ¹ (.65 ¹)	0.49 ¹ (.37 ¹)	0.29 ² (-.20)
2002 Freedom House Index	75	0.72 ¹ (.66 ¹)	0.54 ¹ (.45 ¹)	0.33 ¹ (.25 ²)
Competitive Type of Capitalism	20	-.55 ^{2,3} (-.55 ²)	-.52 ² (-.57 ²)	-.79 ¹ (-.79 ¹)
Household Size				
1985 Average Family Size	75	-.72 ¹ (-.60 ¹)	-.60 ¹ (-.49 ¹)	-.38 ¹ (-.31 ¹)
2001 Average Household Size	75	-.76 ¹ (-.66 ¹)	-.41 ¹ (-.24 ²)	-.35 ¹ (-.24 ²)

¹ p<.01, 2-tailed

² p<.05, 2-tailed

³ Correlation with intellectual autonomy minus embeddedness only. See text for explanation.

Notes: Correlations in parentheses are controlled for GDPpc 1985.

GDPpc=Gross Domestic Product per Capita, from the World Bank.

GNIpc=Gross National Income per Capita, from the World Bank.

Average Household/Family Size=from the Encyclopaedia Britannica Almanac.

of autonomy/embeddedness ($\beta=.78$), egalitarianism/hierarchy ($\beta=.59$), and democracy ($\beta=.69$). Critically, autonomy/embeddedness predicted change in development between 1993 and 2004 ($\beta=.20$, $p<.05$). Thus, this dimension of cultural values influences socioeconomic development reciprocally. I cannot estimate the relative strength of the reciprocal influences because we lack earlier measures of the cultural values.

POLITICAL SYSTEM

The political system is another aspect of the social structure that culture might influence reciprocally. The next three rows of Table 7.2 present associations of cultural orientations with earlier, contemporaneous, and later Freedom House indexes of level of democracy in 75 countries (Freedom House, various years). The democracy index refers to both civil liberties and political rights. Democratization is heavily dependent on socioeconomic development (Welzel, Inglehart, & Klingemann, 2003). I therefore show, in parentheses, the correlations of culture and democracy controlled for national wealth.

Autonomy and democracy go together, regardless of national wealth. By implication, embeddedness opposes democratization. The more the culture emphasizes that it is legitimate and desirable for individuals to pursue and express their own ideas and feelings, the higher the level of democracy in a country. The more the culture expects individuals to preserve and live according to group traditions, the lower the level of democracy. Egalitarianism also correlates positively (and hierarchy negatively) with democracy, regardless of national wealth. A culture that encourages people to treat others as moral equals and to contribute voluntarily to maintaining the social fabric is conducive to and supportive of a democratic political system. A culture that expects people to accept the role requirements of hierarchical structures unquestioningly opposes democratization. Harmony/mastery shows no clear association with democracy.

Schwartz (2007a) presented a path analysis to examine possible reciprocal, causal relations between cultural orientation and level of democracy. It indicated that earlier levels of democracy (1985) had no influence on cultural orientations (1995) over and above those of socioeconomic level. In order to examine whether culture influences *change* in levels of democracy, the analysis entered the 1995 indexes of democracy and of culture and the earlier index of economic level as predictors of democracy in 2002. Both autonomy/embeddedness ($\beta=.18$, $p<.05$) and egalitarianism/hierarchy ($\beta=.16$, $p<.05$) independently predicted change in democracy. Earlier development affected these cultural values and they, in turn, fully mediated the effects of development on increasing democracy. This path analysis suggests that causality may flow only from culture to levels of democracy and not the reverse, a conclusion meriting further study.

TYPE OF ECONOMIC SYSTEM*

Varieties of capitalism theory arrays national political economies on a continuum from “liberal” to “coordinated” market economies (e.g., Hall & Soskice, 2001). Market competition is the primary source of coordination in more liberal economies. The premise underlying the economic system is that society achieves the highest quality and quantity of goods and services when all compete and pursue self-interests in a free market. In more coordinated economies, strategic interaction among firms is central. Optimal outcomes ensue when actors in the economy work collaboratively toward their goals. They thereby build mutual trust and commitment through information-sharing, deliberation, monitoring, and sanctioning.

Hall and Gingerich (2004) provide an index that locates 20 industrialized countries along this continuum. The U.S. is highest in the competitiveness of its economy, and other Anglo countries are also high. The Austrian and German economies are the most collaborative. Scores on this index do

* See Schwartz (2007b) for a more detailed discussion.

not correlate with country wealth. Hence, their relations to culture are free of the potential influence of national differences in affluence.

The pursuit of self-interest, maximizing profit, and economic growth are central to the ideology of competitive economies and to their everyday activities (Kasser, Cohn, Kanner, & Ryan, 2007). Exploitation of resources and people for the sake of progress and change takes precedence over preserving natural resources and protecting the immediate welfare of people whose interests conflict with one's own. This competitive type of economy is congruent with a culture high in mastery and low in harmony. Row 7 of Table 7.2 presents correlations of cultural orientations with competitiveness in the economy across the 20 industrialized countries. The -.79 correlation with harmony/mastery strongly supports expectations.

A competitive political economy is also congruent with a hierarchical versus egalitarian culture. Capitalists, laborers, and consumers, each starting with different levels of resources, seek to maximize their own outcomes in the competitive market, even at the expense of others. The inevitable outcome is an unequal distribution of resources, legitimized by the competitive ethos. Market forces that privilege the strong rather than internalized values that promote collaboration with others govern most economic transactions. The -.52 correlation with egalitarianism/hierarchy supports expectations for this cultural value dimension.

Kasser et al. (2007) argue that, contrary to common assertions, competitive economic systems undermine rather than promote personal freedom. They glorify financial success, hold up models few can match, advertise products people must strive to obtain, and pressure people to work harder, longer, and with less choice than they desire. Such practices promote responsiveness to external expectations and deprive people of opportunities to cultivate their own interests. This conflicts with the intellectual (though not the affective) autonomy orientation. Less clear is whether cultural embeddedness is congruent with a competitive economy. Pressures to conform and to meet external expectations fit such an orientation. My theory implies that cultures low in autonomy are high in embeddedness. The -.55 correlation with this cultural dimension in Table 7.2 supports expectations. Both intellectual autonomy ($r = -.56$) and embeddedness ($r = .45$) contributed to this correlation.

In summary, the type of political economy in industrialized countries—the extent to which their capitalist system is competitive versus collaborative—correlates strongly with the cultural orientations in these countries. The analyses cannot assess causality, but reciprocal influence between the cultural orientations and political economy is likely. It is certainly plausible that culture supports or constrains the ideology that underlies the economic system.

FAMILY/HOUSEHOLD SIZE

Culture also influences the size of families and is influenced, in turn, by family size. Consider first how family/household size influences culture. Where the typical household is large, it is crucial for behavior to be predictable and controlled. Unquestioning obedience and conformity to authority and role obligations are functional. Family members must view themselves as inseparable parts of a family collectivity and identify with its interests in order for large families to run smoothly. Such practices foster cultural embeddedness and hierarchy. Large families are incompatible with cultural autonomy and egalitarianism. The demands of coordination preclude treating each family member as a unique individual with equal rights. They discourage permitting family members to make decisions autonomously and to pursue their own ideas, interests, and desires. A greater need for pragmatic problem solving in larger families may lead to a somewhat stronger emphasis on mastery.

How might cultural value orientations influence family/household size? Autonomy, in particular, encourages having few children so that each can develop his or her unique abilities and interests. Autonomy and egalitarianism encourage and justify women's pursuit of meaningful nonfamily roles. This too reduces the number of children. Embeddedness promotes commitment to the in-group. It sanctifies group continuity and, hence, having many children to promote it. Autonomy

sanctifies individual choice. It justifies weighing children against alternative paths for achieving personal meaning in life, such as careers.

Rows 8 and 9 of Table 7.2 report the correlations of the cultural value dimensions with average family size in 1985 and with average household size in 2001.* The negative correlations indicate that the larger the average family or household, the greater the cultural emphasis on embeddedness, hierarchy, and mastery values. These associations hold even when controlling country affluence.

To assess possible causal relations between cultural orientations and family size, I performed a path analysis, fully reported in Schwartz (2007a).† In this analysis, 1985 family size predicted all three cultural dimensions (all β 's $> .35$), over and above the effects of earlier country affluence. Family size is clearly important in the development of culture. But the evidence also suggested that cultural influences family size. The culture dimensions predicted *change* in family size between 1985 and 2001. As expected, greater cultural autonomy ($\beta = -.44$) and harmony ($\beta = -.15$) independently promoted a decrease in family size. Moreover, culture fully mediated the effect of country affluence on *change*. Thus, rising socioeconomic levels appear to reduce family size only insofar as they lead to change in cultural values.

Surprisingly, cultural hierarchy promoted decreasing family size and egalitarianism slowed the decrease over time ($\beta = .31$). A possible interpretation is that hierarchy enables societies to exert more effective pressures on families. Where hierarchy is high, governments that seek to raise productivity through increasing women's participation in the workforce may succeed more in promulgating norms and even rules that oppose large families. Congruent with this interpretation, the greatest reductions in family size occurred in China, with its anti-natalist policies, and in the East Asian "Tigers." Highly hierarchical cultures and governments intent on rapid movement toward market economies characterize these countries.

CULTURAL DISTANCE AND INTERNATIONAL INVESTMENT

What determines how much firms from one country invest in another country? Cultural distance between countries may deter investment because it increases transaction costs. Lacking information about distant cultures, managers will find it more difficult to make sense of the social environment. They may not recognize the prevailing beliefs and rules, may think they are inappropriate or unnecessary, and may not know how to work within them. Cultural distance hinders the flow of information about firm value, hiring, compensation, training, and other management practices. The uncertainty this breeds between managers from culturally distant countries is likely to discourage investing in one another's firms.

Dozens of studies have examined how cultural distance affects where investment occurs, international diversification, and the performance of multinational firms. These studies used a composite index of distance based on the four Hofstede dimensions (Kogut & Singh, 1988). A meta-analysis found that this index predicted inconsistently (Tihanyi, Griffith, & Russell, 2005). A survey of the relevant literature urged researchers to avoid using composite indexes of cultural distance (Kirkman, Lowe, & Gibson, 2006).

Heeding this warning, Siegel, Licht, and Schwartz (2007) computed separate indexes of cultural distance for each of the three Schwartz cultural dimensions. Country scores were based on the teachers' data from 55 countries surveyed during the years 1988–2004. Rather than use three dimension scores, we represented cultural profiles by taking one orientation from each dimension (i.e., egalitarianism, harmony, and embeddedness). For every pair of countries we constructed a measure of sheer distance—the square of the difference between the countries' scores on a cultural

* Data are from the Encyclopaedia Britannica Almanac. The dates (1985, 2001) are the median of about a 5-year period for which the data were reported.

† I used household and family size as proxies for one another because, for many countries, pre-1990 data were unavailable for the former and post-1995 data were unavailable for the latter. Concurrent measures for the two indexes correlated highly.

orientation. We wished to predict the flow of investment between countries. In order to assess whether the flow of investment is greater in one direction or the other, we also constructed a measure of signed distance.*

We studied the impact of each type of cultural distance on international flows of direct investment (FDI). FDI includes joint ventures, mergers and acquisitions, and setting up new firms from scratch. Data on FDI both into and out of 55 countries are available from the United Nations Centre on Transnational Corporations for years 1970–2004, although the majority of observations take place after 1990. There were 37,614 potential transactions between each country pair for these years. The distribution of investments was skewed, and there were no investments between most pairs of countries for most years. To avoid biasing the econometric results, we followed standard methodological practice in economics and used the natural logarithm of the annual dollar flow of investment + 1 as our dependent variable.

Any factor that reduces the transaction costs of investment between countries might promote FDI. Thus, FDI might be greater between countries that: (a) are geographically closer, (b) share a common language, (c) share a common colonizer (e.g., British), (d) have similar legal systems, (e) have similar levels of corporation taxation, (f) have similar levels of law enforcement, (g) have a bilateral tax treaty, (h) have a bilateral investment treaty, and (i) have similar levels of political stability. In addition, wealthier countries are more likely to invest in each other because they have more resources to invest and an infrastructure to absorb investments. We ask: Does cultural distance affect FDI even after taking all of these factors into account?

To address this question, we regressed our FDI measure on the above variables. We also included cultural distance and signed cultural distance for the three cultural orientations. Table 7.3 presents the results of the ordinary least squares regression. Not surprisingly, the strongest predictors of FDI were country wealth and geographic closeness. Following them, however, were four of the indexes of cultural distance.

As expected, pairs of countries invested less in one another the greater the cultural distance on *egalitarianism*. A one standard deviation increase in egalitarianism distance brought a 16.5 percent decrease in mutual investment. The finding for signed *embeddedness* distance indicates that investment flowed more from countries low on cultural embeddedness to those high on this orientation. Rephrased in terms of the cultural dimension, investment flowed more from highly autonomous cultures to those high in embeddedness. Contrary to expectations for cultural distance, the greater the distance on cultural harmony, the greater the FDI. The significant finding for signed harmony distance indicates that investment flowed more from low- to high-harmony cultures. Rephrased in terms of the cultural dimension, the flow was greater from high-mastery cultures to high-harmony cultures. I return shortly to the interpretation of these findings.[†]

Sharing a similar legal system, a common colonizer, and a similar level of law enforcement also increased the flow of investment, but these effects were weaker than those of the cultural orientations. Moreover, having bilateral tax or investment treaties, a common language, similar corporate taxes, or similar political stability levels explained no significant additional variance in investment. Thus, cultural orientations had a substantial role in explaining FDI, one comparable to or greater than many economic and legal factors. We next interpret the findings for culture.

What accounts for the effect of egalitarianism distance? Cultural egalitarianism relates to national policies that concern control of abuses of market and political power. It correlates positively with lower corruption, transparency in financial markets, labor protections for workers, and effective antimonopoly regulation. It also correlates with greater redistribution of wealth to the weak, the unemployed, and the elderly. Egalitarianism further matters because it affects corporate culture

* This section draws on Siegel, Licht, & Schwartz (2007), which provides sources for all the variables included.

[†] The results are robust to inclusion of the GLOBE Project (House, Hanges, Javidan, Dorfman, & Gupta, 2004) and Hofstede (1980) dimensions and of various other variables. Distance on the Hofstede dimensions explains no significant variance in FDI.

TABLE 7.3
OLS Regression of the Natural Log of Foreign Direct Investment Flow + 1 on Predictors [Robust Standard Errors in Parentheses]

Independent Variable	Coefficient	t
Egalitarianism distance	-.884 ¹ [0.127]	-6.96
Signed egalitarianism distance	0.065 [0.087]	-.75
Harmony distance	0.340 ¹ [0.085]	4.00
Signed harmony distance	-.382 ¹ [0.069]	-5.54
Embeddedness distance	-.033 [0.067]	-.49
Signed embeddedness distance	-.766 ¹ [0.059]	-12.98
Log product of origin-host GDP	0.395 ¹ [0.017]	23.23
Log product of origin-host GDP per capita	0.104 ¹ [0.018]	5.78
Signed corporate taxation similarity	-.003 [0.002]	-1.5
Political stability similarity	-.478 [0.289]	-1.65
Common language	0.183 [0.157]	1.17
Common colonizer	0.363 ¹ [.126]	2.88
Geographic closeness	0.551 ¹ [.035]	15.74
Same legal family	0.255 ¹ [.072]	3.54
Law enforcement similarity	0.026 ² [.011]	2.77
Bilateral investment treaty in effect ³	-.104 [.059]	-1.76
Bilateral tax treaty in effect	0.076 [.056]	1.36
Number of observations	37614	
p value	<.0001	
R-squared	0.367	

¹ p<.01² p<.05³ Coefficient based on alternate analysis excluding bilateral tax treaty.

Note: OLS = Ordinary Least Squares
 GDP = Gross Domestic Product

and the everyday business conduct of managers. Managers from less egalitarian (i.e., hierarchical) societies tend to believe that status or power differences make it legitimate to apply different rules to different people (Brett, 2001). These correlates of cultural egalitarianism constitute critical contingencies for the effective functioning of firms. Firms adapt to the policies and practices associated with the level of egalitarianism in their own country. The different critical policies and practices in countries distant on egalitarianism likely deter investment by raising anticipated transaction costs.

As noted, investment flowed more from countries low on cultural embeddedness to those high on this orientation. Further analyses reveal that much of this effect is associated with differences in country's environmental regulation (Siegel et al., 2007). Cultural embeddedness is the orientation most closely and negatively associated with strictness of environmental regulation. In high-embeddedness societies, groups focus more on their own outcomes and less on costs in the wider society or physical environment. Investment tends to flow from countries with strict environmental controls (low embeddedness) to those with lax environmental controls (high embeddedness). Multinational enterprises apparently seek "pollution havens." Adding indexes of environmental regulation to the analyses substantially weakens the effect of signed embeddedness on FDI. Even after controlling environmental regulation, however, signed embeddedness distance affects FDI, though more weakly. This influence must operate through mechanisms yet to be identified.

For harmony, surprisingly, cultural distance had a positive effect on FDI. The signed harmony effect indicates that the flow of investments was mainly from low-harmony (i.e., high-mastery) to high-harmony countries. Why? High-mastery cultures emphasize such entrepreneurial values as daring, success, and ambition. Firms in high-mastery countries operate in a cultural atmosphere that encourages assertive action, risk taking, and growth. Firms in high-harmony countries function in the opposite atmosphere. Firms in high-mastery countries are more active in reaching out to new markets. In choosing where to expand, they find high-harmony countries especially attractive. There, they can anticipate less competition for the resources they need and for the market niche they wish to fill. This reasoning receives support from regression analyses that include distance on various indexes of entrepreneurial activity. In each case, the effect of harmony distance weakens considerably.

In sum, this research on FDI makes a unique contribution to our understanding of international investment. It demonstrates that cultural distance can both deter (egalitarianism) and promote (harmony) investment, depending on the type of cultural value orientation in question. It also shows that differences between countries on particular cultural orientations promote flows of investment in one direction rather than another. With its complex set of cultural effects, this study illustrates especially clearly that cultural value orientations are properties of societies, not of individuals.

CONCLUSIONS

This chapter presented my theory of seven cultural value orientations that form three cultural value dimensions. The analyses demonstrate that all three cultural dimensions contribute uniquely to mapping national cultures and to explaining socially significant phenomena. The mapping of countries identifies cultural regions around the world that are similar to those identified in the Inglehart studies. This is striking, considering that the approaches differ in their basic cultural constructs, their methods of measurement, and the types of samples studied. When different subsamples (e.g., age or gender samples) are used to map countries in both the Schwartz and Inglehart analyses, the order of countries on the cultural orientations or dimensions is very similar. This supports the idea that countries are meaningful cultural units. Nonetheless, it is important to investigate other cultural units, such as ethnic groups, in future research.

Given the relations of my cultural dimensions to the Hofstede and Inglehart dimensions, it is reasonable to ask whether it matters which set of dimensions we use. I repeated the analyses reported here using the four Hofstede and two Inglehart dimensions. For six of the nine variables listed

in Table 7.1, one of my dimensions had the strongest associations. For two indexes of socioeconomic development (1995 and 2004) and for 1985 democracy, the Inglehart self-expression/survival dimension correlated more strongly. Only my dimensions predicted change in level of democracy, and they predicted change in family size and in socioeconomic level substantially more strongly than either the Inglehart or the Hofstede dimensions. As noted, cultural distance on the Hofstede dimensions did not affect FDI. I did not test effects on FDI of distance on the Inglehart dimensions. Overall, for the variables studied here, my dimensions appear to be more fruitful.

This chapter examined relations of my cultural value orientations to a limited number of country characteristics. These orientations also relate systematically and predictably to national differences in many other characteristics (e.g., ethnic heterogeneity, women's equality), in social policies (e.g., expenditures on defense, sickness benefits, and health), and in the attitudes and opinions of populations (e.g., selfishness, competition, traditional morality) (Schwartz, 2004, 2006b, 2007a).

The research reported here is based on indexes of the cultural orientations derived from the Schwartz Value Survey. Indexes of these same orientations can now be derived from the Portrait Values Questionnaire (PVQ) that uses a very different method to measure values (Schwartz, 2005b, 2006a). The culture scores used here were based on samples of schoolteachers and students. For 26 countries that have participated in the European Social Survey (ESS), it is now possible to compute scores for cultural orientations based on representative national samples. The ESS uses a short form of the PVQ that yields usable scores, though most have relatively low reliabilities. The ESS data permit examination of the relations of national culture to an enormously rich and diverse set of individual and nation-level variables. These are public domain data that can be downloaded at <http://www.ess.nsd.uib.no>.

Here, I discussed cultural value orientations only as dependent or independent variables. However, culture is also a moderator of the relations among other variables. For instance, the effect of gender on the importance people attribute to their personal values depends on the prevailing cultural orientations in a society. In countries high on cultural autonomy, men attribute substantially more importance to power values than women do, for example. This sex difference is much smaller in countries high on cultural embeddedness (Schwartz & Rubel, 2007). Cultural value orientations are likely to moderate many other relationships (e.g., effects of social norms or pressures on behavior). Studies of cultural orientations as moderators offer much promise for understanding cross-cultural differences in the relations between individual difference variables.

The cultural value orientations presented here provide one handle for conceptualizing and operationalizing a key element of culture. These orientations characterize cultures, not individuals. Country scores are not located in the mind of any individual, nor do differences between any pair of individuals capture cultural distances between societies. These orientations underlie, justify, and give coherence to the ways that societal systems function. They are external to individuals, expressed in the distribution of primes and expectations that members of a cultural group encounter. Thus, this conception of culture differs from views of culture as a psychological variable.

Cultures are never fully integrated and coherent. Different institutions within societies give more emphasis to orientations compatible with their functions (e.g., hierarchy in armies, embeddedness in religions, intellectual autonomy in universities). Ethnic, occupational, religious, and other subgroups within societies may experience different cultural pressures and develop different value preferences. These differences induce social tension, conflict, and change. One-time, static measures of the overall culture of a country are therefore somewhat problematic. Nonetheless, the findings reported here demonstrate that the cultural value profiles of dominant cultural groups can characterize societies in a fruitful manner. They also enable us to uncover dynamic, causal relations between culture and important societal phenomena.

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REFERENCES

- Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1986). *Habits of the heart: Individualism and commitment in American life*. New York: Harper & Row.
- Benedict, R. (1974/1946). *The chrysanthemum and the sword: Patterns of Japanese culture*. New York: New American Library.
- Bond, M. H. (1996). Chinese values. In M. H. Bond (Ed.) *Handbook of Chinese psychology*. Hong Kong: Oxford University Press.
- Borg, I., & Groenen, P. J. F. (2005). *Modern multidimensional scaling: Theory and applications*, 2nd ed. New York: Springer-Verlag.
- Brett, J. M. (2001). *Negotiating globally: How to negotiate deals, resolve disputes, and make decisions across cultural boundaries*. San Francisco: Jossey-Bass.
- Campbell, D. T. (1975). On the conflicts between biological and social evolution and between psychology and moral tradition. *American Psychologist*, 30, 1103–1126.
- De Clercq, S. (2006). *Extending the Schwartz Value Theory for assessing supplementary person-organization fit*. Unpublished PhD dissertation, Universiteit Ghent, Belgium.
- Diamond, J. (1997). *Guns, germs and steel: The fate of human societies*. New York: Norton.
- Encyclopaedia Britannica Almanac 2005*. (2004). Chicago: Encyclopedia Britannica.
- Ester, P., Halman, L., & Seuren, B. (1994). Environmental concern and offering willingness in Europe and North America. In P. Ester, L. Halman, & R. de Moor (Eds.), *The individualizing society: Value change in Europe and North America* (pp. 163–181). Tilburg, The Netherlands: Tilburg University Press.
- Etzioni, A. (1993). *The spirit of community: The reinvention of American society*. New York: Simon & Schuster.
- Fischer, R. (2006). Congruence and functions of personal and cultural values: Do my values reflect my culture's values? *Personality and Social Psychology Bulletin*, 32, 1419–31.
- Fontaine, J. R. J., Poortinga, Y. H., Delbeke, L., & Schwartz, S. H. (2008). Structural equivalence of the values domain across cultures: Separating sampling fluctuations from meaningful variation. *Journal of Cross-Cultural Psychology*, 39, 345–365.
- Freedom House (Ed.) (various years). *Freedom in the world*. Lanham, MD: University Press of America.
- Goldreich, Y., & Raveh, A. (1993). Coplot display technique as an aid to climatic classification. *Geographical Analysis*, 25, 337–353.
- Guttman, L. (1968). A general nonmetric technique for finding the smallest coordinate space for a configuration of points. *Psychometrika*, 33, 469–506.
- Gyekye K. (1997). *Tradition and modernity: Philosophical reflections on the African experience*. New York: Oxford University Press.
- Hall, P. A. & Gingerich, D. W. (2004). *Varieties of capitalism and institutional complementarities in the macroeconomy: An empirical analysis*. MPIfG Discussion Paper 04/5. Max Planck Institute for the Study of Societies: Cologne, Germany.
- Hall, P. A., & Soskice, D. (2001). (Eds.) *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford, UK: Oxford University Press.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Beverly Hills, CA: Sage.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.
- Huntington, S. P. (1993). The clash of civilizations. *Foreign Affairs*, 72, 22–49.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic and political change in 43 societies*. Princeton, NJ: Princeton University Press.
- Inglehart, R. (2001). International Conference on Comparing Cultures. Tilburg, The Netherlands, April 2001.
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, 65, 19–51.
- Kağıtçıbaşı, Ç. (1996). Individualism and collectivism. In J. W. Berry, M. H. Segall, & Ç. Kağıtçıbaşı (Eds.) *Handbook of cross-cultural psychology*, Vol. 3 (pp. 1–50). Needham Heights, MA: Allyn & Bacon.
- Kashima, E. S., & Kashima, Y. (1998). Culture and language: The case of cultural dimensions and personal pronoun use. *Journal of Cross-Cultural Psychology*, 29, 461–486.
- Kasser, T., Cohn, S., Kanner, A. D., & Ryan, R. M. (2007). Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts. *Psychological Inquiry*, 18, 1–22.

- Kirkman, B. L., Lowe, K. B., & Gibson C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural value framework. *Journal of International Business Studies*, 37, 285–320.
- Knuckhohn, F., & Strodtbeck, F. (1961). *Variations in value orientations*. Evanston, IL: Row, Peterson.
- Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19, 411–432.
- Kohn, M. L., & Schoeler, C. (1983). *Work and personality*. Norwood, NJ: Ablex.
- Lewis, B. (2003). *What went wrong: The clash between Islam and modernity in the Middle East*. New York: Harper Collins.
- Liska, A. E. (1990). The significance of aggregates for testing and conceptually linking macro and micro theories. *Social Psychology Quarterly*, 53, 292–301.
- Matsumoto, D. R. (2002). *The new Japan: Debunking seven cultural stereotypes*. Boston: Intercultural Press.
- Naroll, R. (1973). Galton's problem. In R. Naroll & R. Cohen (Eds.), *A handbook of method in cultural anthropology* (pp. 974–989). New York: Columbia University Press.
- Putnam, R. D. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (vol. 25) (pp. 1–65). New York: Academic Press.
- Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, C. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications*. (pp. 85–119). Thousand Oaks, CA: Sage.
- Schwartz, S. H. (1999). Cultural value differences: Some implications for work. *Applied Psychology: An International Review*, 48, 23–47.
- Schwartz, S. H. (2004). Mapping and interpreting cultural differences around the world. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparing cultures: Dimensions of culture in a comparative perspective*. Leiden, The Netherlands: Brill.
- Schwartz, S. H. (2005a). Basic human values: Their content and structure across countries. In A. Tamayo & J. B. Porto (Eds.), *Valores e comportamento nas organizações* [Values and behavior in organizations] (pp. 21–55). Petrópolis, Brazil: Vozes.
- Schwartz, S. H. (2005b). Robustness and fruitfulness of a theory of universals in individual human values. In A. Tamayo & J. B. Porto (Eds.), *Valores e comportamento nas organizações* [Values and behavior in organizations], (pp. 56–95). Petrópolis, Brazil: Vozes.
- Schwartz, S. H. (2006a). Les valeurs de base de la personne: Théorie, mesures et applications [Basic human values: Theory, measurement, and applications]. *Revue française de sociologie*, 42, 249–288.
- Schwartz, S. H. (2006b). Value orientations: Measurement, antecedents and consequences across nations. In R. Jowell, C. Roberts, R. Fitzgerald, & G. Eva (Eds.), *Measuring attitudes cross-nationally: Lessons from the European Social Survey* (pp. 169–203). London: Sage.
- Schwartz, S. H. (2007a). A theory of cultural value orientations: Explication and applications. In Y. Esmer & T. Pettersson (Eds.), *Measuring and mapping cultures: 25 years of comparative value surveys* (pp. 33–78). Leiden, The Netherlands: Brill (2007).
- Schwartz, S. H. (2007b). Cultural and individual value correlates of capitalism: A comparative analysis. *Psychological Inquiry*, 18, 52–57.
- Schwartz, S. H. (2008). Causes of culture: National differences in cultural embeddedness. In A. Gari, & K. Mylonas (Eds.). Q.E.D. from Herodoevs ethnographic journeys to cross-cultural research. Athens: Atrapos Editions.
- Schwartz, S. H., Bardi, A., & Bianchi, G. (2000). Value adaptation to the imposition and collapse of Communist regimes in Eastern Europe. In S. A. Renshon & J. Duckitt (Eds.), *Political psychology: Cultural and cross cultural perspectives* (pp. 217–237). London: Macmillan.
- Schwartz, S. H., & Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. *Journal of Research in Personality*, 38, 230–255.
- Schwartz, S. H., & Ros, M. (1995). Values in the West: A theoretical and empirical challenge to the individualism-collectivism cultural dimension. *World Psychology*, 1, 99–122.
- Schwartz, S. H., & Rubel-Lifschitz, T. (in press). Cross-national variation in the size of sex differences in values: Effects of gender equality. *Journal of Personality and Social Psychology*.

- Siegel, J. I., Licht, A. N., & Schwartz, S. H. (2008). *Egalitarianism, cultural distance, and FDI: A new approach*. Paper read at the American Law & Economics association 18th annual Meeting, Columbia Law School, New York.
- Tihanyi, L., Griffith, D. A., & Russell, C. J. (2005). The effect of cultural distance on entry mode choice, international diversification, and MNE performance: A meta-analysis. *Journal of International Business Studies*, 36, 270–283.
- Triandis, H. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Weber, M. (1958). *The Protestant ethic and the spirit of capitalism*. New York: Scribners.
- Welzel, C., Inglehart, R., & Klingemann, H. D. (2003). The theory of human development: A cross-cultural analysis. *European Journal of Political Research*, 62, 341–379.
- Williams, R. M., Jr. (1968). Values. In E. Sills (Ed.), *International encyclopedia of the social sciences* (Vol. 16, pp. 283–287). New York: Macmillan.
- Zemov, N. (1961). *Eastern Christendom*. London: Weidenfeld and Nicholson.
- Zemov, N. (1971). Christianity: The Eastern schism and the Eastern Orthodox Church. In R. C. Zaehner (Ed.), *The Concise Encyclopedia of Living Faiths* (pp. 77–93). London: Hutchinson.

8 On Finding Improved Ways of Characterizing National Cultures

Peter B. Smith

The mapping of contrasts between samples of respondents drawn from different nations has been a major preoccupation of cross-cultural psychologists over the past several decades. The creation of such maps is essential if we are to begin testing explanations as to why studies conducted in different locations yield different results. Commencing with work by Hofstede (1980), substantial samples drawn from a wide range of nations have been surveyed, and the nation-level dimensions that were identified to summarize the variations that were found have had a major impact on the development of cross-cultural theory. For instance, his dimensions of individualism-collectivism and power distance have guided the design and interpretation of many studies. In more recent times, growing awareness of the methodological issues entailed in cross-national surveys has led some authors (e.g., Schwartz, 1994, 2004; Smith, Bond, & Kağıtçıbaşı, 2006) to debate how to enhance the validity of these dimensions, whereas others (e.g., Bond, 2002; Oyserman & Lee, 2007; Singelis, 1994) have now come to see greater potential in individual-level analyses that treat the individual rather than the nation as the unit of analysis.

In this chapter, I address three aspects of these debates: First, what confidence can we have in the ability of individuals to provide valid descriptions of themselves or their cultural contexts? Second, how can it be valid to use aggregated individual self-reports to characterize larger cultural entities? Finally, are individuals' survey response styles a source of measurement error or an aspect of the cultural contexts in which they are located? I then discuss some implications of the perspective that I have advanced for a more adequate understanding and measurement of variation between the cultures of different nations.

ON THE LIMITS OF SELF-KNOWLEDGE

It has long been established that there are substantial limitations on individuals' awareness of their own cognitive processes (Nisbett & Wilson, 1977). Even in respect of the more limited task of adequately describing oneself, there is a host of circumstantial factors to be taken into account (Paulhus & Vazire, 2007). Most characterizations of culture-relevant qualities rest on asking individuals to describe themselves, their values, their beliefs, their attitudes, or their perceptions of what they see around them. As Heine, Lehmann, Peng, and Greenholz (2002) noted, the ratings that respondents provide will be conditioned by their prior cultural experiences. The points on a set of rating scales that we endorse will be calibrated in terms of the frequencies of the values and actions that we have come to see as normal in our daily environments. How we choose to represent ourselves at a particular point in time will be a product of whatever is salient to us at that time. Thus, cross-cultural comparisons of self-reports risk incommensurability, unless some account is taken of the social context within which the reports were received. Indeed, studies have shown that self-reports in some contexts may even be readily influenced by experimental manipulations as simple

as changing the order in which survey questions are presented (Haberstroh, Oyserman, Schwarz, Kühnen, & Ji, 2002).

Some researchers have sought to take benefit from these types of malleability to study aspects of culture experimentally through priming studies (Oyserman & Lee, 2007; Trafimow, Triandis, & Goto, 1991). However, the need to construct a cross-cultural psychology that samples fully the existing range of cultural variations requires us also to find ways of optimizing the validity of responses to field surveys. Several corrections to earlier procedures have been explored. First, measures can be constructed that have stronger reference to specific social contexts. Early surveys often reflected an individualistic cultural focus by asking respondents to characterize themselves or their values in abstract and general ways (e.g., Rokeach, 1973; Schwartz, 1994; Singelis, 1994). Surveys referring to specific settings or to particular group memberships enhance the likelihood that respondents from more collectivistic contexts can represent themselves adequately (Cousins, 1989; Smith & Long, 2006).

Second, it is advantageous if the questions asked are also specific rather than general. Schwarz and Strack (1999) indicated that respondents are better able to process responses to specific questions, whereas very general questions are more likely to elicit responses based upon generalized decision heuristics. For instance, Hattrup, Mueller, and Aguirre (2007) studied work values across 25 nations by having respondents rate how satisfied they were with seven specific aspects of their work and then regressed these ratings on an overall rating of job satisfaction. This procedure was shown to yield estimates of work values that differed from answers to the direct and decontextualized questions about the same range of work motives that were employed in Hofstede's (1980) survey. Hattrup et al. maintain that the indirect method is preferable for many purposes, because it is less vulnerable to the effects of consciously mediated self-presentation. As a second example, the Portrait Value Survey developed by Schwartz et al. (2001) improves on the earlier Schwartz Value Survey by asking raters to compare themselves with a series of specific other persons, each of whom exemplifies a given value domain, rather than to rate abstract values. The more specific version yielded data in contexts where respondents were unable to comprehend the more abstract version.

A third possibility is to ask respondents to report their perceptions of the values and practices of those around them, rather than to make self-reports. This was the procedure employed in the 61-nation GLOBE survey (House et al., 2004). Questions of this kind circumvent the "frog pond" problem identified by Heine et al. (2002) by asking respondents directly what it is that they see as normative about their cultural context. However, some critics suggest that respondents may have only very partial awareness of what is normative in their nation as a whole, and are likely to respond in terms of their much more local contexts (Hofstede, 2006). At least among U.S. and Chinese student samples, high levels of agreement are found as to which values are perceived to characterize one's national and more local cultures (Wan, Chiu, Peng, & Tam, 2007; Wan, Chiu, Tam, Lee, Lau, & Peng, 2007). Both Wan et al. studies provided evidence that those students who identified more strongly with their national culture endorsed values that were more similar to those that are perceived to characterize their nation.

Fischer (2006) provided further evidence relating to this issue by comparing the mean endorsement of self-reported values derived from Schwartz's (1994) values survey with ratings by respondents from 10 nations whose values they perceived to be endorsed by persons within their nation. This study revealed that the two procedures for summarizing values did converge for Schwartz's value domains of embeddedness and autonomy, but not for the other domains, namely, mastery, harmony, hierarchy, and egalitarianism. Fischer found that within his sample the two types of values measures shared, on average, no more than 8 percent of variance. Thus, asking respondents to rate the values of those around them cannot be considered a replacement for self-ratings: rather, it is an alternative or additional procedure with its own distinctive entailed measurement hazards, but with some potential as a new way of tapping aspects of culture (Smith, 2006). For instance, as Wan et al. (2007) suggest, the actions of members of a culture may be guided more by their perceptions of what is normative than by the average of actual values.

A fourth perspective relevant to measurement validity has to do with the contemporary interest of social psychologists in experimental priming (Oyserman & Lee, 2007). The disciplinary culture of psychology is such that there is a strong incentive to render cultural variations into a format where hypotheses can be addressed experimentally. However, there is no reason to assume that priming occurs only within the domain of the psychology lab. The processes by which cultures are created and reproduced or recreated involve a perpetual interplay between individuals and those with whom they come into contact (Kashima, 2007). These interactions can prime dispositions to act and to represent oneself in particular ways. In terms of traditional conceptualizations, one would say that we seek to accommodate the values and beliefs of those around us. In terms of the more recent focus on cognitive processing, one would say that interactions elicit, sustain, and elaborate schemata derived from one's prior socialization history.

Some particularly fundamental primes are presented through the languages that are in daily, recurrent use within particular cultures. Kashima and Kashima (1998) have noted that the languages spoken within collectivist nations permit the dropping of personal pronouns, whereas the languages spoken in individualist nations do not. Knowing what language usages are permitted does not tell us how they are actually used, but in a further study Kashima and Kashima (1997) did find that Australians used "I" six times as often as did Japanese. Furthermore, a series of studies comparing language use of Chinese and American children and of their caregivers has shown that Americans use more nouns, while Chinese use more verbs (Tardif, Gelman, & Xu, 1999; Tardif, Shatz, & Naigles, 1998). Using more verbs would be consistent with giving more attention to one's context and one's relations with others. Using more nouns is consistent with a stronger focus on objects and abstract entities. By sampling bilinguals, one can determine the causal effects of such language priming directly. For instance, Verkuyten and Pouliasi (2002) primed Greek children living in the Netherlands to respond to a survey in Greek or in Dutch. Those responding in Greek reported stronger identification with their friends, a more positive social identity, a less positive personal identity, and more external attributions for events. These differences are all in the direction of differences that were found between separate samples of monocultural Greek and monocultural Dutch children.

Thus, we can expect that survey measures administered by co-nationals in local languages would present primes that enhance the probability of culturally valid responding. Consistent with this reasoning, surveys administered in English in 24 nations yielded responses that were significantly closer to those obtained from native English speakers than were the responses to the same items when administered in the local language (Harzing, 2005).

We can therefore identify several ways in which threats to the validity of responses to survey items by individuals from differing cultural backgrounds can be reduced. This can be achieved by using survey items that focus on specific issues, they are expressed in specific settings, expressed in local languages, and administered by local persons. Checks can also be made by asking respondents to characterize prevalent aspects of their cultural context rather than simply describing themselves.

Having taken account of the various threats to survey validity, the principal argument that they are not overwhelming is that numerous studies have found consistency in the direction of mean differences in response obtained from samples drawn from differing cultural locations. Some authors (e.g., Oyserman, Coon, & Kemmelmeier, 2002) have concluded that no such consistency has been found. However, Oyserman et al. took no account of uncorrected response bias in many of the studies included within their meta-analysis. Schimmack, Oishi, & Diener (2005) showed that when such differences are discounted, the predicted differences are indeed present. Such differences are of course not always found, and care is needed to ensure that any differences that are observed are not due to other sources of uncontrolled demographic variance. The argument that such differences are plausible and valid is enhanced when they can be predicted *a priori* from existing conceptualizations of cultural difference (Smith, Bond, & Kağıtçıbaşı, 2006).

A further caution is also important. Even where differences between national samples are found, they cannot in themselves be considered as representations of *culture*. Means of individual-level

scores are best referred to as *citizen scores* (Smith et al., 2006). Culture is not a property of an individual; rather, it is a property of a system that *contains* individuals. Individuals' scores on psychological measurements are one consequence of the dynamics and socialization processes that characterize a given cultural system. To study national cultures, we need nation-level measurement, which I consider in the next section.

LEVELS OF ANALYSIS

Although the concept of culture has utility at many levels of analysis, cross-cultural researchers have found it convenient to focus on the culture of nations. If culture is defined in terms of shared evaluations and interpretations of what goes on around us, one could envisage studies of the culture of dyads, teams, organizations, nations, professional disciplines, and much else. Paradoxically, despite Hofstede's decision to focus on nations, much effort has been put into creating measures of individual-level cultural orientation, whether these be in terms of self-construals (Singelis, 1994), values (Schwartz et al., 2001), or beliefs (Leung & Bond, 2004). This trend may have much to do with the preference of most psychologists to work with individual-level data.

However, there are pressing reasons why we should sustain and strengthen a focus on analyzing cultures at a more macroscopic level. In their explorations of personality, individual and social cognition, and small group behavior, the majority of psychologists in Western nations has consistently ignored or underrated the importance of the broader social context. Some individual-level studies by cross-cultural researchers have bucked this trend however, and have taken due account of national culture. These studies have mostly drawn their theoretical framework from concepts derived from the nation-level frameworks of Hofstede, Schwartz, and others (Kirkman, Lowe, & Gibson, 2006; Smith et al., 2006).

There is a particular reason why it is important that researchers continue to follow this lead. The present corpus of cross-cultural research is heavily slanted toward comparisons between North America and East Asia. Explanations of differences found between samples from these locations are most typically explained in terms of individualism-collectivism, and in the best of these studies some individual-level measurement has been included as a check of whether the samples studied do in fact differ along this dimension. However, the data that we have suggest that North Americans are by no means the most individualistic, nor are East Asians the most collectivistic (Hofstede, 2001; Schwartz, 2004). Furthermore, North Americans and East Asians may well differ along many other dimensions. Unless we broaden our sampling of nations and derive a truly representative characterization of the nature and range of cultural differences between these nations, we risk impoverished and over-freighted interpretations of the differences that are found (Matsumoto & Yoo, 2006).

The views I have expressed here rest on the assumption that we do, in fact, have an established basis for characterizing the cultures of nations. The procedures pioneered by Hofstede and followed by most of those who have subsequently sampled a large range of nations assume that we can best characterize nations by aggregating item means derived from individual-level data and determining their nation-level structure. The assumption implicit within this procedure is that nations are sufficiently homogeneous that the nation-level structures derived in this way can adequately represent the cultural context with which the average culture member has to contend. The increasing recent popularity of hierarchical linear modeling now enables this assumption to be tested empirically. This approach reveals that nation-level variance in values is substantially less than individual-level variance (Poortinga & van Hemert, 2001). Some values show greater individual-level variance than others, which helps to explain why Fischer (2006) found that respondents could more accurately characterize their own nation in terms of the values that are widely shared, but not those with greater variance.

However, knowing the proportion of variance in values or beliefs that is attributable to nations rather than to individuals does not by itself help us to evaluate their use in characterizing national cultures. We need figures derived from other types of indicators. Aside from values, the index most

frequently discussed in relation to national culture is national wealth (e.g., Georgas, van de Vijver, & Berry, 2004; Van de Vliert, Huang, & Levine, 2004). National wealth is most typically treated as something external to culture that must be discounted if we are to understand the true nature of a nation's culture (Hofstede, 2001; Bond et al., 2004). Wealth can certainly be conveniently measured at the national level, but as with values and beliefs, it could in fact equally well be applied to analyses at the individual level. Furthermore, just as the values and beliefs of a nation may be more or less homogeneous (Sagie & Schwartz, 1996), so the distribution of wealth may be more or less equitable, as represented by the Gini index (World Bank, 2000).

The reasoning that values and beliefs are part of culture but that wealth is not is unconvincing. Wealth as an aspect of culture is a particular set of shared beliefs. Most members of most cultures around the world do agree to treat it as real. As a symbol of worth, it is bartered through institutions such as banks and shops, but it no longer has any objective basis in terms of the existence of certain rare metals. The significance of nation-level wealth to cross-cultural psychologists is not that it is "objective" but that it correlates strongly with characterizations of nation-level values, such as individualism-collectivism and power distance (Hofstede, 2001). Its meaning and significance are reproduced and adapted from generation to generation, just as are other values and beliefs. In fact, individualism, power distance, and wealth correlate so strongly that they are best regarded as alternative ways of describing the same aspect of nation-level variance.

To varying extents, the same critique can be advanced of other "objective" indexes of national culture that might be considered as preferable to the use of aggregated individual-level measures of values or beliefs. Nations differ in the boundaries that are drawn between health and illness, between what is considered to be suicide and what is accidental death, between what is criminal and what is not, and more generally in what is worthy of being recorded and what is not. Note that many of the candidates for use as objective nation-level indexes rely just as much upon the aggregation of individual-level data as do measures derived from beliefs and values. Those that do not are typically indexes of the variability of individuals within a population, such as the Gini index and measures of ethnic diversity.

To identify qualities of nations in ways that are wholly independent of aggregation, we would do better to focus upon the social structures and institutions that culture members agree to treat as real. The essence of modern societies lies in the existence of large organizations, both governmental and commercial. While many of the nations in the contemporary world have existed for less than a century, each of them has marked their inauguration by the creation of extensive administrative bureaucracies. These bureaucracies powerfully structure the lives of those within the given nation, for instance, through legislation, the provision of schooling, access to political action, judicial process, and varying degrees of control of the media. These same bureaucracies also exert powerful socializing effects on the substantial number of immigrants who move among nations in the contemporary world. Over the same period of time, businesses have become increasingly multinational in their focus and have often sought to create organizational structures that transcend national boundaries. There is as yet no clear view as to how these divergent global tendencies will play out (Peterson & Smith, 2008).

Institutional theorists in the U.S. have noted how U.S. companies frequently engage in the process of benchmarking. In other words, these companies identify the performance indicators of their U.S. competitors and seek to emulate them. Over time, therefore, they become more and more similar to one another (Meyer, Boli, Thomas, & Ramirez, 1997). The competitive structure of business thus tends to enhance the distinctiveness of nations, so long as markets are focused within nations. Conversely, benchmarking across nations is likely to enhance globalization.

However, despite 50 years of supposed globalization, large organizations in nations of Western Europe such as France, Germany, and the U.K. still retain distinctive ways of conducting their business (Redding, 2005). According to Redding, historical factors that affect the evolution of organizations in different nations enable them to achieve continuing distinctive advantages in particular types of market. Particular market niches may be best addressed through different types of organizational

structure, so we might find that certain types of industry become concentrated within nations whose cultures best provide such structures. For instance, the success and continuing distinctiveness of the East Asian Tiger economies have been focused on the mass production techniques that are uniquely suited to the consumer electronics and automobile industries (Abegglen & Stalk, 1984). Mass production requires detailed coordination of the contribution of numerous individuals. It should therefore work best in cultures where persons work better in groups and do much forward planning. More recently, Dickson, Resick, and Hanges (2006) have shown that when nation-level differences are partialled out from the GLOBE researchers' databank, there are significant linkages between types of organizational structure and preferred styles of leadership. Their analysis did not report the extent to which national culture was orthogonal to organizational structure, or whether the two measures were to some extent associated, as the above arguments would lead us to expect.

The implication of this focus on institutions and organizations is that analyses of national culture can be augmented by drawing on the insights provided by sociologists and political scientists. However, their perspective is not superior to the use of aggregated indexes; it is better to think of it as complementary to the more psychological approach (Schooler, 1994). Contemporary nations are certainly built around complex systems of organizational structures, but these structures are no more objective than the values and beliefs of the persons who construct and maintain them. They will persist or decay in tandem with the shared beliefs and values of those individuals whom they engage, although they are likely to take longer to do so. As Schooler (1994) put it:

Everything that exists has not been dysfunctional long enough or severely enough to cease being able to exist. From this perspective the hypothesis about the different speeds at which things change can be reframed in terms of how long an element in a particular system can be dysfunctional before it ceases to exist.... Thus perhaps because less redundancy is likely to exist at subordinate rather than at superordinate levels, the lower the level of phenomena, the shorter the period for which it can tolerate dysfunctional elements.... Dysfunctional elements in a person's thought processes are likely to threaten the thinker's existence more quickly than dysfunctional elements in a social structure are likely to lead to the end of the social structure. In a similar manner cultural level phenomena may be more resistant to change than social structural level phenomena, because phenomena at the cultural level are superordinate to those at the social structural level: not only are social structures elements of cultural level phenomena, but cultural beliefs affect the role expectations that pattern social structures. (p. 268)

RESPONSE STYLES

Thus far, it has been argued that identifying dimensions of national culture can provide crucially important guidelines to interpretation of the results of psychological investigation, and that maps based upon aggregation of individual attributes have a continuing value. It therefore remains a priority to enhance the validity of the measurements that are employed. Some consideration has already been given to ways of improving the content of measures. However, the critically important issue of response style has been deferred for consideration at this point.

There is a continuing difference of opinion among those engaged in culture mapping as to how to best conceptualize and take account of survey response style (Cheung & Rensvold, 2000; Fischer, 2004). The point at issue is whether respondents from certain nations have a distinctive propensity to agree with survey items, particularly those that use Likert-scale response categories. Other possibilities are to tend to disagree, to use scale extremes, or to make consistently moderate judgments. Hofstede (1980), Smith et al. (2002), and Schwartz (2004) all treated response style as a source of error and devised a procedure for discounting some aspects of style from their measures. The GLOBE researchers reported substantial response style effects in their data from only a few of the sampled nations, and these effects were subsequently discounted. However, reports derived from the World Values Survey (Inglehart, 1997; Inglehart & Baker, 2000; Inglehart & Oyserman, 2004; Minkov, 2007) and the Social Axioms Survey (Bond et al., 2004; Leung & Bond, 2004) did not discount response style.

Researchers in this field have mostly focused on acquiescent responding rather than, for instance, on socially desirable responding. There are two reasons for this. First, research into cultural values concerns what is socially desirable. Consequently, cross-cultural researchers do not have a culturally valid measure of social desirability that is independent of the entity that they seek to measure. Second, most cross-cultural researchers have been reluctant to use surveys that include reverse-worded items, because of their awareness that there are cultural variations in the extent to which respondents will report disagreement with items. This variation becomes evident when mean levels of acquiescence are compared.

The procedure most typically used to determine nation-level acquiescence has been to compute the average level of agreement across a series of items that are sufficiently diverse so that it is not plausible that respondents would agree with them all. Smith (2004) derived indexes of acquiescence of this type from data derived from five different multi-national surveys, including also nation-level scores for mean responses on the Eysenck lie scale (van Hemert, van de Vijver, Poortinga, & Georgas, 2002). Substantial convergence was found between the different acquiescence estimates, despite the fact that the contributing studies had sampled different populations assessed at different times using different survey items. Correlations as high as .75 were found. The estimates of acquiescence derived from measures of values and beliefs were all linked, including the one derived from the GLOBE researchers' reportedly acquiescence-free measure of *values* (House et al., 2004). However, significant correlations with the acquiescence estimate based on the GLOBE researchers' measure of perceived *practices* were few and differed from those for the values measures. It appears that the circumstances eliciting nation-level acquiescence differ for self-ratings and for other-ratings.

Smith (2004) next used the GLOBE nation-level measures to characterize the nations that scored highest on acquiescence on the values measures. The highest scoring nations were found to be those with higher reported in-group collectivism, higher preference for institutional collectivism, and higher preference for uncertainty avoidance. The strongest predictor of acquiescence for the practices measure was low scores on Hofstede's measure of uncertainty avoidance. Smith interprets these results as showing that respondents describe the practices within their nation more positively in nations that are low on anxiety. In the surveys that have most influenced researchers to focus on individualism and collectivism, acquiescence was in fact controlled. Smith's results therefore do not threaten the conclusions drawn from such studies. However, his results underline the need to gain a fuller understanding of the effects of a full range of response styles on definitions of cultural dimensions.

Smith and Fischer (2008) used hierarchical linear modeling to investigate the circumstances that maximize both acquiescence and extreme responding. Estimates of these two response styles were extracted from the database reported by Smith et al. (2002). An individual-level collectivism measure also derived from this database, and the nation-level dimensions identified by Hofstede (2001), House et al. (2004), and Schwartz (2004) were then used to characterize the sample characteristics associated with these response styles. Acquiescence was found to be particularly marked among those respondents with collectivist values who were also located within more collectivist nations. Extreme responding was particularly marked among respondents with individualistic values who were also members of nations with individualistic values. These results indicate that individuals' propensity to respond in particular ways are augmented if they are located within a cultural context in which there is widespread use of a similar response style.

While these results appear simple and coherent, the analyses using the GLOBE predictors indicated the importance of additional factors that will need to be unraveled. The GLOBE researchers distinguished two separate nation-level dimensions of collectivism. The dimension labeled as in-group collectivism resembles the dimension identified by Hofstede and others. The items defining the separate dimension labeled as institutional collectivism refer to the degree to which structures that facilitate collective action exist in a nation. The analysis by Smith and Fischer found that acquiescence was most strongly associated with in-group collectivism, but that extreme responding was more strongly predicted by low-institutional collectivism. The newly identified dimension of

institutional collectivism has yet to be extensively investigated, but it refers to the extent to which a culture provides structures in which individuals are encouraged to participate. It is plausible that where such structures are absent, individuals might habitually represent themselves in more extreme and distinctive ways, in order to gain access to groups that they wish to join. Thus, we may need to look more widely than to the well-worn distinction between individualism and collectivism if we are to understand the significance of a full range of differing response styles. We next need to explore the implications of the studies reported in this section.

IMPLICATIONS

It appears that there are consistent and predictable differences in the styles of survey responses that are typically found in different national cultures. These may reflect the characteristic ways in which persons communicate, not just with researchers but with other members of their culture. For instance, these patterns may be congruent with Hall's (1966) distinction between the direct communication style favored in low-context cultures and the indirect style found in high-context cultures. If this is so, then there are two important issues that require further exploration. First, are the results of surveys that do not control for response style valid? What remains of their original dimensions once acquiescence or extremity response styles are partialled out of each data set? Second, can response styles be used as a way of summarizing additional importance dimensions of cultural variance? I discuss these points in turn.

The survey of social axioms was the first attempt to identify dimensions of generalized belief across numerous nations. Across 40 nations, Leung and Bond (2004) identified five individual-level patterns of belief, which they named as social cynicism, belief in social complexity, reward for application, fate control, and religiosity. Using a measure of acquiescence derived from Schwartz Value Survey data, I find the following correlations with citizen scores on these dimensions for 39 nations: social cynicism .11 (ns); social complexity -.48 ($p < .01$); reward for application -.67 ($p < .001$); fate control .42 ($p < .01$); and religiosity .68 ($p < .001$). Acquiescence is thus substantially associated with endorsement in four of the five dimensions of belief that Leung and Bond identified. When these authors sought to identify nation-level dimensions of beliefs, the items defining these four individual-level dimensions coalesced into a single factor which Bond et al. (2004) named as *dynamic externality* and found difficult to interpret. This factor correlates at .72 ($n = 40$; $p < .001$) with acquiescence. It seems likely that this factor can best be interpreted in terms of generalized acquiescence. Either acquiescence is itself an attribute of national cultures in which these dimensions of belief also prevail, or the association of beliefs with acquiescence is a measurement artifact. To choose between these explanations, acquiescence would need to be discounted before the item means are factor analyzed.

The two dimensions of national culture identified by Inglehart (1997) are based on the percentage of respondents within each nation sampled that recorded their strong agreement with particular sets of items that factor together at the nation level. These items are said also to group together at the individual level (Inglehart & Baker, 2000). Inglehart's measure of traditional versus secular values correlates at .72 ($n = 55$; $p < .001$) with the measure of acquiescence derived from the Schwartz Value Survey data. His measure of survival versus self-expression values correlates with acquiescence at .38 ($n = 55$; $p < .01$). The difficulty in interpreting these results parallels earlier discussions of the relationship between national wealth and measures of values. Is acquiescence an integral component of the pattern of values that Inglehart has identified, or is it a source of measurement error?

One way to address this question is to partial out the effect of acquiescence on the relationship of the Inglehart dimensions to other key variables. Taking the instance of the relationship of his dimensions to wealth, we find the following: Tradition versus secularity correlates with wealth at -.47 ($n = 71$; $p < .001$), but with acquiescence partialled out this reduces to -.12 ($n = 52$, ns). Survival versus self-expression correlates with wealth at -.75 ($n = 71$; $p < .001$), and this reduces only to -.70 ($n = 52$; $p < .001$) with acquiescence partialled out. Since removing the variance attributable to acquiescence

from the correlation between wealth and tradition values has a substantial effect, there must be substantial variance in common between acquiescence and tradition values. Acquiescence must be an element within the grouping of values that Inglehart has labeled as tradition values. Interpreting acquiescence in this manner is consistent with the findings of Smith (2004) and Smith and Fischer (2008) that linked acquiescence with in-group collectivism and uncertainty avoidance.

Minkov (2007) has recently conducted further analyses of the World Values Survey databank, also without controlling for acquiescence. He follows Inglehart in focusing on the percentage of respondents who strongly agreed with certain nation-level item means. By selecting particular groups of items, he identified three dimensions which he named as *inclusion-exclusion*, *indulgence-restraint*, and *monumentalism-flexumility*. The first and third of these resemble Inglehart's dimensions, and partialing out acquiescence from the relationship between them and wealth shows a similar pattern to that found with Inglehart's dimensions. No doubt this occurs because these dimensions are drawn from some of the same items used by Inglehart.

In contrast, Minkov's dimension of *indulgence versus restraint* is not significantly correlated with national wealth. However, he suggests that it is conceptually similar to the conception of tight versus loose cultures that has been discussed in recent years (Gelfand, Nishii, & Raver, 2006). Gelfand (2006) has reported nation-level means for tightness-looseness derived from a survey conducted in 35 nations. Gelfand's means were standardized to control for acquiescence, whereas Minkov's means correlate with acquiescence at .37 ($n = 48$; $p < .01$). Indulgence versus restraint correlates with tightness-looseness also at a disappointing .37 ($n = 25$, ns). However, when acquiescence is partialled out, this correlation rises to .56 ($n = 24$, $p < .01$), indicating that the presence of acquiescence in Minkov's measure has masked the relation between the two variables. Thus, two new measures that are conceptually related do provide promising evidence of validity, but only when acquiescence has been partialled out.

Discussion of the results of those surveys that have not controlled for response style suggests that there are some occasions when control is appropriate to gain a clearer view of those aspects of culture that are not in fact associated with acquiescent communication styles. However, there are other occasions when it may be entirely satisfactory to leave it in. Cross-national comparisons of life satisfaction provide one such instance. Satisfaction with one's life is one of the defining elements of Inglehart's self-expression versus survival dimension, and it is therefore not surprising that controlling for acquiescence has a minimal effect on the well-known association between national wealth and life satisfaction (Diener & Oishi, 2000). Discerning more precisely which are the elements within collectivistic, survival-oriented cultures that most strongly elicit acquiescent communication styles is a task for the future. We also need much fuller investigation of the correlates of other communication styles.

CONCLUSION

In this chapter I have argued the case for a continuing focus on mapping the national cultures of the world. We can no longer see cultures as static entities defined by certain prevalent shared values. It is preferable to see them as dynamic entities within which certain ways of construing oneself and others are constantly being reciprocally primed. This newer conception requires review and reformulation of the ways in which attributes of culture such as values and beliefs can best be surveyed. It is preferable that questions be specific rather than abstract and contextually specified rather than diffuse. Explicit attention must be directed to survey response format, either through the use of counterbalanced questions or through provision for subsequent procedures whereby choices can be made on whether to take account of specific styles.

Given that these types of precaution are in place, there is no reason to argue that aggregation of individual-level survey responses to the nation level would provide indexes of national culture that are any less valid than those derived from "objective" indexes. Valid nation-level maps are a continuing requirement if we are to succeed in correctly interpreting the context and significance of

studies that have been conducted in one or just a few of the almost 200 currently identified nations in the world.

REFERENCES

- Abegglen, J. S., & Stalk, G. (1984). *Kaisha: The Japanese organization*. New York: Basic Books.
- Bond, M. H. (2002). Reclaiming the individual from Hofstede's ecological analysis: A 20-year Odyssey. *Psychological Bulletin*, 128, 73-77.
- Bond, M. H., Leung, K., Au, A., Tong, K. K., de Carrasquel, S. R., Murakami, F., et al. (2004). Cultural-level dimensions of social axioms and their correlates across 41 cultures. *Journal of Cross-Cultural Psychology*, 35, 548-570.
- Cheung, G. W., & Rensvold, R. B. (2000). Assessing extreme and acquiescent response sets in cross-cultural research using structural equations modeling. *Journal of Cross-Cultural Psychology*, 31, 187-212.
- Cousins, S. (1989). Culture and selfhood in Japan and the US. *Journal of Personality and Social Psychology*, 56, 124-131.
- Dickson, M. W., Resick, C. J., & Hanges, P. J. (2006). Systematic variation in organizationally-shared cognitive prototypes of effective leadership based on organizational form. *Leadership Quarterly*, 17, 487-505.
- Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 185-218). Cambridge, MA: MIT Press.
- Fischer, R. (2004). Standardization to account for cross-cultural response bias: A classification of score adjustment procedures and review of research in JCCP. *Journal of Cross-Cultural Psychology*, 35, 263-282.
- Fischer, R. (2006). Congruence and functions of personal and cultural values: Do my values reflect my culture's values? *Personality and Social Psychology Bulletin*, 32, 1419-1431.
- Gelfand, M. J. (2006, July). *Culture and social situations: A multilevel analysis of situational constraint across 35 nations*. Paper presented at the 26th congress of the International Association for Applied Psychology, Athens.
- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, 91, 1225-1244.
- Georgas, J., van de Vijver, F., & Berry, J. W. (2004). The ecocultural framework, ecosocial indices and psychological variables in cross-cultural research. *Journal of Cross-Cultural Psychology*, 35, 74-96.
- Haberstroh, S., Oyserman, D., Schwarz, N., Kühnen, U., & Ji, L. J. (2002). Is the interdependent self more sensitive to question context than the independent self? Self construal and the observation of conversational norms. *Journal of Experimental Social Psychology*, 38, 323-329.
- Hall, E. T. (1966). *The hidden dimension*. New York: Doubleday.
- Harzing, A. W. (2005). The use of English questionnaires in cross-national research: Does cultural accommodation obscure cross-national differences? *International Journal of Cross-Cultural Management*, 5, 213-224.
- Hattrup, K., Mueller, K., & Aguirre, P. (2007). Operationalizing value importance in cross-cultural research: Comparing direct and indirect measures. *Journal of Occupational and Organizational Psychology*, 80, 499-513.
- Heine, S. J., Lehmann, D. R., Peng, K. P., & Greenholz, J. (2002). What's wrong with cross-cultural comparisons of subjective Likert scales? The reference group effect. *Journal of Personality and Social Psychology*, 82, 903-918.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage.
- Hofstede, G. (2006). What did GLOBE really measure: Researchers' minds versus respondents' minds. *Journal of International Business Studies*, 37, 882-896.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., Gupta, V. & GLOBE Associates (2004). *Leadership, culture and organizations: The GLOBE study of 62 nations*. Thousand Oaks, CA: Sage.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton, NJ: Princeton University Press.
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change and the persistence of traditional values. *American Sociological Review*, 65, 19-51.

- Inglehart, R., & Oyserman, D. (2004). Individualism, autonomy and self-expression: The human development syndrome. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparing cultures: Dimensions of culture in a comparative perspective* (pp. 74–96). Leiden, Netherlands: Brill.
- Kashima, E. S., & Kashima, Y. (1997). Practice of the self in conversations: Pronoun drop, sentence co-production and contextualization of the self. In K. Leung, U. Kim, S. Yamaguchi & Y. Kashima (Eds.), *Progress in Asian social psychology* (Vol. 1, pp. 165–179). Singapore: Wiley.
- Kashima, Y. (2007). A social psychology of cultural dynamics: Examining how cultures are formed, maintained and transformed. *Social and Personality Psychology Compass*, 1, http://www.blackwell-compass.com/subject/socialpsychology/article_view?article_id=spco_articles_bpl063.
- Kashima, Y., & Kashima, E. (1998). Culture and language: The case of cultural dimensions and personal pronoun use. *Journal of Cross-Cultural Psychology*, 29, 461–486.
- Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies*, 37, 285–320.
- Leung, K., & Bond, M. H. (2004). Social axioms: A model of social beliefs in multicultural perspective. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 36, pp. 119–197). San Diego, CA: Elsevier Academic.
- Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research. *Perspectives on Psychological Science*, 1, 234–250.
- Meyer, J. W., Boli, J., Thomas, G. M., & Ramirez, F. O. (1997). World society and the nation-state. *American Journal of Sociology*, 103, 144–187.
- Minkov, M. (2007). *What makes us different and similar: A new interpretation of the World Values Survey and other cross-cultural data*. Sofia, Bulgaria: Klasika i Stil.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128, 3–72.
- Oyserman, D., & Lee, S. W. S. (2007). Priming "culture": Culture as situated cognition. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 255–279). New York: Guilford.
- Paulhus, D. L., & Vazire, S. (2007). The self-report method. In R. W. Robins, R. C. Fraley, & R. Krueger (Eds.), *Handbook of research methods in personality psychology* (pp. 224–239). New York: Guilford Press.
- Peterson, M. F., & Smith, P. B. (2008). Social structures and processes in cross-cultural management. In P. B. Smith, M. F. Peterson & D. C. Thomas (Eds.), *Handbook of cross-cultural management research* (pp. 35–58). Thousand Oaks, CA: Sage.
- Poortinga, Y. H., & van Hemert, D. A. (2001). Personality and culture: Demarcating between the common and the unique. *Journal of Personality*, 69, 1033–1060.
- Redding, G. (2005). The thick description and comparison of societal systems of capitalism. *Journal of International Business Studies*, 36, 123–155.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Sagie, G., & Schwartz, S. H. (1996). National differences in value consensus. In H. Grad, A. Blanco & J. Georgas (Eds.), *Key issues in cross-cultural psychology* (pp. 217–226). Lisse, Netherlands: Swets & Zeitlinger.
- Schimmack, U., Oishi, S., & Diener, E. (2005). Individualism: A valid and important dimension of cultural differences between nations. *Personality and Social Psychology Bulletin*, 9, 17–31.
- Schooler, C. (1994). A working conceptualization of social structure: Mertonian roots and psychological and socio-cultural relationships. *Social Psychology Quarterly*, 57, 262–273.
- Schwartz, S. H. (1994). Beyond individualism and collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, Ç. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method and applications* (pp. 85–119). Thousand Oaks, CA: Sage.
- Schwartz, S. H. (2004). Mapping and interpreting cultural differences around the world. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparing cultures: Dimensions of culture in a comparative perspective* (pp. 43–73). Leiden, Netherlands: Brill.
- Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., Harris, M., & Owens, V. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology*, 32, 519–542.
- Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. In D. Kahnemann, E. Diener & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 61–84). New York: Russell Sage Foundation.

- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin, 20*, 580–591.
- Smith, P. B. (2004). Acquiescent response bias as an aspect of cultural communication style. *Journal of Cross-Cultural Psychology, 35*, 50–61.
- Smith, P. B. (2006). When elephants fight, the grass gets trampled: The GLOBE and Hofstede projects. *Journal of International Business Studies, 37*, 915–921.
- Smith, P. B., Bond, M. H., & Kağıtçıbaşı, Ç. (2006). *Understanding social psychology across cultures: Living and working in a changing world*. London: Sage.
- Smith, P. B., & Fischer, R. (2008). Acquiescence, extreme response bias and culture: A multilevel analysis. In F. J. R. van de Vijver, D.A. van Hemert & Y. Poortinga (Eds.) *Individuals and cultures in multilevel analysis* (pp. 285–314). New York: Erlbaum.
- Smith, P. B., & Long K. M. (2006). Social identity theory in cross-cultural perspective. In R. J. Brown & D. Capozza (Eds.), *Social identities: motivational, emotional, cultural influences* (pp. 153–169). Hove, UK: Psychology Press.
- Smith, P. B., Peterson, M. F., & Schwartz, S. H. (2002). Cultural values, sources of guidance and their relevance to managerial behavior: A 47-nation study. *Journal of Cross-Cultural Psychology, 33*, 188–208.
- Tardif, T., Gelman, S.A., & Xu, F. (1999). Putting the “noun” bias in context: A comparison of English and Mandarin. *Child Development, 70*, 620–635.
- Tardif, T., Shatz, M., & Naigles, L. (1998). Caregiver speech and children’s use of nouns versus verbs: A comparison of English, Italian and Mandarin. *Journal of Child Language, 24*, 535–565.
- Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology, 60*, 649–655.
- Van de Vliert, E., Huang, X., & Levine, R. V. (2004). National wealth and thermal climate as predictors of motives for volunteer work. *Journal of Cross-Cultural Psychology, 34*, 62–71.
- van Hemert, D. A., van de Vijver, F. J. R., Poortinga, Y. H., & Georgas, J. (2002). Structure and score levels of the Eysenck personality questionnaire across individuals and countries. *Personality and Individual Differences, 33*, 1229–1249.
- Verkuyten, M., & Pouliasi, K. (2002). Biculturalism among older children: Cultural frame-switching, attributions, self-identification and social attitudes. *Journal of Cross-Cultural Psychology, 33*, 596–609.
- Wan, C., Chiu, C-y., Peng, S., & Tam, K-p. (2007). Measuring cultures through intersubjective norms: Implications for predicting relative identification with two or more cultures. *Journal of Cross-Cultural Psychology, 38*, 213–226.
- Wan, C., Chiu, C-y., Tam, K-p., Lee, S-l., Lau, I. Y-m., & Peng, S-q. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology, 92*, 337–354.
- World Bank (2000). *Human development report*. Washington, DC: Data Development Center.

9 Nagging Problems and Modest Solutions in Cross-Cultural Research

Illustrations From Organizational Behavior Literature

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At the dawn of the twenty-first century, globalization has become a fact of everyday life. More and more people have to interact with individuals from other cultures in shopping malls, educational institutes, and housing complexes. Cross-cultural interactions are especially salient in the business context. To remain competitive, employees, teams, and organizations must operate effectively in multicultural, multinational contexts. Many organizations compete with global corporations without even venturing abroad. The metaphors of a “flat world” (Friedman, 2005) or a “global village” (Ger, 1999) have been used to describe the contemporary business world for the flow of goods, services, and information transcending the boundaries of space and time. Not surprisingly, the acceleration of business globalization has triggered a surging interest in international management research (Tsui, 2007) and has stimulated several stock-taking reviews (Gelfand, Erez, & Aycan, 2007; Kirkman, Lowe, & Gibson, 2006; Schaffer & Riordan, 2003; Werner, 2002). These reviews identified some significant advances but also revealed many unresolved issues that have hampered the progress in cross-cultural management research. This chapter draws on the learning from an analysis of 93 cross-national studies of organizational behavior published in the best management and psychology journals, and offers a few modest—and hopefully promising—solutions that may advance progress in this line of work. Although we focus on the organizational literature, researchers in the broader social-science domain face similar challenges. Therefore, we hope our discussion is relevant to scholars working in non-business fields as well.

Before plunging into a critical review of the literature, we wish to express our great admiration and respect for the scholars who authored these works. Cross-national research is demanding in multiple ways. It is not for the faint-hearted because of the need to clear many intellectual and physical hurdles. Similar to creating any influential work, achieving success in cross-national research requires from researchers “an unshakable sense of efficacy and a firm belief in the worth of what they are doing” (Smith & Hitt, 2005, p. 30). The deficiencies identified do not diminish the value and contribution of their work. Rather, they serve to show the challenge that the field as a whole faces and the nagging problems it should strive to overcome. The problems we identified are (1) lack of coherence in the measurement of cultural values, (2) use of nation as a proxy and the lack of controls in research design, (3) mismatch in the level of analysis between theory and method, (4) insufficient attention to construct validity across samples, and (5) within-nation variation in culture largely ignored. To address these problems, we offer five modest solutions, which include (1) clarify the group property of culture, (2) treat culture as configurations or patterns, (3) adopt a polycontextual approach to isolate the cultural influences from other national characteristics, (4)

go beyond back-translation and measurement equivalence, and (5) develop cross-cultural theories through deep contextualization. We hope these solutions will be useful not only to management scholars who engage in international work but also to cross-cultural researchers in general.

A FEW NAGGING PROBLEMS

Cross-cultural studies in cross-national contexts are more complex than are “domestic” cross-cultural studies. For one thing, this research requires cross-level theorizing and research methods by relating national level characteristics to individual- or team-level responses. In addition, cross-national data collection requires matching samples and a demonstration of the conceptual and operational equivalence of measures. These challenges go beyond those involved in studying cross-cultural differences in a single country when the cultural context is assumed to be the same for all individuals and where cultural values are treated as individual differences variables (e.g., Erez & Earley, 1993). Cross-national analyses of individual- or team-level phenomena suggest that culture could have both a group-level and an individual-level effect due to the possibility of simultaneous between- and within-nation variations in culture (Tung, 2008).

We consider only the studies that address research questions in organizational settings or issues couched within an organizational context, excluding laboratory studies using student subjects involving fictitious firms or situations. We base our analysis on articles in the leading journals that publish management research and in the ten-year period most recent as of this writing (1996–2005). The rationale for focusing on the best work in the most recent decade is simple: it informs us of major advances and helps us to identify the challenges evident in even the best work on this important and expanding field. Identifying the problems evident in the publications of the high-quality journals should set a high standard for future progress in this research.

We identified 93 articles in 16 leading journals that met the criteria specified.* This is only 3 percent of all the publications in these journals in the period covered. This number suggests that the quantity of cross-national management research is surprisingly low and lags behind the level of global commerce in general (31 percent of global Gross Domestic Product in 2006). There are two possible reasons for this low level of publications in the leading journals. First is the low motivation to engage in cross-national studies due to the inherent difficulty in conducting such studies. Second may be the high rejection rate by the journals owing to theoretical and statistical challenges inherent in cross-cultural studies. Identifying the reasons for the rejection of these manuscripts would be a worthwhile task, but it is beyond the scope of this chapter. Rather, we focus on the “nagging problems”—problems that exist in studies that have passed the scrutiny of the most rigorous review process of the top-tier journals.

PROBLEM 1: LACK OF COHERENCE IN THE MEASUREMENT OF CULTURAL VALUES

Scientific progress and accumulation of knowledge depend on commonly accepted definitions of constructs and consistency or coherence in their measurement. Such coherence in measurement is not evident in the recent papers published in the best journals, including definitions of the term “culture.” Over 50 years ago, Kroeber and Kluckhohn (1952, p. 181) offered a rather broad definition of culture as consisting of

patterns, explicit and implicit of and for behavior, acquired and transmitted by symbols ... [T]he essential core of culture consists of tradition ... ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other hand, as conditioning elements of future action.

* See page 430 of Tsui, Nifarkar, and Ou (2007) for a list of the 16 journals.

Thirty years later, Hofstede offered a rather general and somewhat vague definition of culture as “the collective programming of the mind that distinguishes one group or category of people from another” (Hofstede, 1984, p.51). More recently, the Global Leadership and Organizational Behavior Effectiveness (GLOBE) project defined culture in a fairly broad way again as “shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives that are transmitted across generations” (House, Hanges, Javidan, Dorfman, & Gupta, 2004, p. 15). Common to these definitions is the observation that similar experiences and shared meanings are important delimiters of cultural groups. Further, even though scholars generally agree that variations between groups can exist on multiple dimensions (cognitions and behaviors as well as values), cross-cultural research has focused on shared cultural values as the major source of differentiation. Hofstede’s four seminal culture values of individualism/collectivism, power distance, uncertainty avoidance, and masculinity/femininity (Hofstede, 1980) have dominated the empirical research on cross-cultural psychology and management in the past 25 years (Kirkman et al., 2006).

Although there is some commonality in the definitions of and assumptions about culture in the 93 studies, there is great variation in its measurement. Measures range from the use of a general concept such as nation (which could represent multiple cultural values as well as other national characteristics) to the focus on a specific cultural value such as individualism or power distance. Only 43 of the 93 studies actually measured the cultural value(s) hypothesized to account for the differences in the phenomena analyzed. Table 9.1 summarizes the cultural values measured and the scales used to measure them in these studies, along with the sources of the scales. Furthermore, only 33 of the 43 studies used the measured cultural value scores for hypotheses testing, with the remaining 10 using cultural values only to validate sample differences. This means that 60 of the studies, or about two-thirds, did not measure the constructs used to explain cross-sample differences but rather used nation as a proxy for culture.

From Table 9.1, we can see that individualism/collectivism (I/C) and power distance (PD) are the most frequently studied cultural values (32 and 18 studies, respectively), in addition to 22 other cultural values reported in 16 studies. These 32 studies used a total of 15 unique sources for a measure of the I/C construct, revealing a clear lack of consensus or consistency in measurement. The PD value also has many variants: hierarchy, egalitarianism-hierarchy, or hierarchical differentiation, and with many different measures. Similar to I/C, there is no information on the convergent validity of these multiple measures reflecting fragmentation rather than coherence in measurement approaches for this value. Problems of the 22 other cultural values involve conceptual definition as well. For example, Tinsley (1998, 2001) used the scales of polychronicity and explicit contracting, treating them as cultural values even though both refer to a behavioral orientation. The former refers to a preference for multitasking, or simultaneous tasking, and the latter refers to a preference for overt codes and communications over informal or indirect arrangements. Inconsistency in measurement is not as evident among these values, primarily due to the infrequent use of these cultural values in the studies reviewed.

In summary, the proliferation of values and measurement in recent years is a distinct feature of this literature. The lack of consistency in measurement is a serious threat to the construct validity of the measures and a hindrance to the progress in this line of research.

PROBLEM 2: USE OF NATION AS A PROXY AND LACK OF CONTROLS IN THE RESEARCH DESIGNS

Here, we elaborate further on the problem of using nation as a proxy for culture. This is a common approach in both the studies that used culture as an independent variable and the studies that used culture as a moderating variable. In the former type of studies, variations in individual or team behavior, attitudes, or orientations are directly due to differences in the cultural values. In the latter type of studies, cultural values explain possible differences in the relationship between two or more variables. The differences could be in the magnitude of the relationship (stronger in one culture than

TABLE 9.1
Cultural Values Measured in 43 Cross-National Studies

Cultural Value	Studies That Measured The Cultural Value	Source Cited For The Cultural Value Measured
Variants of individualism/collectivism (32 studies)		
Individualism / collectivism	Chen, Meindl, & Hui, 1998 Cullen, Parboteeah, & Hoegl, 2004 Earley, Gibson, & Chen, 1999 Elenkov & Manev, 2005 Ensari & Murphy, 2003 ¹ Gomez, Kirkman, & Shapiro, 2000 Huang & Van de Vliert, 2003 Smith, Peterson, & Schwartz, 2002 Spector et al., 2001; Spector et al., 2002 Volkema, 2004	Perloe, 1967, 1973; Hui, 1988 Trompenaars & Hampden-Turner, 1998 Earley, 1994 Hofstede, 1980, 2001 Triandis et al., 1988 Wagner, 1995 Hofstede, 1991 Hofstede, 1994 Hofstede, 1994 Hofstede, 1980, 1991
Individualism	Adair, Okumura, & Brett, 2001 ¹ Gibson & Zellmer-Bruhn, 2001 Lam, Schaubroeck, & Aryee, 2002 Murphy-Berman & Berman, 2002 ¹ Tinsley, 2001 Wade-Benzoni et al., 2002 ¹	Schwartz, 1994 Content analysis of interview data Triandis & Gelfand, 1998 Schwartz, 1994 Earley, 1993 Markus & Kitayama, 1991; Schwartz, 1990
Collectivism	Gibson, 1999 Gelfand & Realo, 1999 Kirkman & Shapiro, 2001a Kirkman & Shapiro, 2001b Murphy-Berman & Berman, 2002 ¹ Van de Vliert et al., 2004	Earley, 1993 Triandis, 1994 Maznevski et al., 1997 Maznevski et al., 1997 Schwartz, 1994 Singelis, 1994
Horizontal individualism and vertical collectivism	Chan & Drasgow, 2001 Chen & Li, 2005 Robert et al., 2000 ¹ Thomas & Au, 2002 Thomas & Pekerti, 2003 ¹	Singelis et al., 1995 Singelis et al., 1995 Singelis et al., 1995 Singelis et al., 1995 Singelis et al., 1995
Horizontal collectivism	Chen & Li, 2005	Singelis et al., 1995
Vertical individualism	Robert et al., 2000 ¹	Singelis et al., 1995
In-group collectivism	Fu et al., 2004	House et al., 1999
Independent/interdependent self-construal	Brockner, et al., 2000 Gelfand et al., 2002 ¹ Murphy-Berman & Berman, 2002 ¹	Singelis et al., 1995 Singelis, 1994 Singelis, 1994
Idiocentrism and allocentrism	Lam, Chen, & Schaubroeck, 2002 Schaubroeck, Xie, & Lam, 2000	Triandis & Gelfand, 1998 Triandis & Gelfand, 1998
Variants of power distance (18 studies)		
Power distance	Earley, 1999 Elenkov & Manev, 2005 Gibson & Zellmer-Bruhn, 2001	Earley & Erez, 1997 Hofstede, 1980, 2001 Content analysis of interview data

TABLE 9.1 (continued)
Cultural Values Measured in 43 Cross-National Studies

Cultural Value	Studies That Measured The Cultural Value	Source Cited For The Cultural Value Measured
Hierarchy	Hofstede et al, 2002 Huang & Van de Vliert, 2003 Hui, Au, & Fock, 2004 Kirkman & Shapiro, 2001a Kirkman & Shapiro, 2001b Lam, Schaubroeck, & Aryee, 2002 Peterson & Smith, 1997 Smith, Peterson, & Schwartz, 2002 Van de Vliert & Van Yperen, 1996 Volkema, 2004 Adair, Okumura, & Brett, 2001 ¹ Tinsley & Brett, 2001 ¹ Glazer & Beehr, 2005 ¹ Tinsley, 1998 Tinsley, 2001	Hofstede, 1980, 1991, 2001 Hofstede, 1991 Hofstede, 1991; Brockner et al, 2001 Maznevski et al., 1997 Maznevski et al., 1997 Erez & Earley, 1987 Hofstede, 1991 Hofstede, 1994 Hofstede, 1991 Hofstede, 1980, 1991 Schwartz, 1994 Schwartz, 1994 Schwartz, 1994 No source mentioned Erez & Earley, 1987
Achievement	Other cultural values (16 studies)	
Universalism	Cullen, Parboteeah & Hoegl, 2004	Trompenaars & Hampden-Turner, 1998
Conservatism	Morris et al., 1998 Glazer & Beehr, 2005 ¹ Tinsley & Pillutla, 1998 ¹	Schwartz, 1992, 1994 Schwartz, 1994 Schwartz, 1992
Determination	Kirkman & Shapiro, 2001a	Maznevski et al., 1997
Doing orientation	Kirkman & Shapiro, 2001b	Maznevski et al., 1997
Egalitarian commitment-conservatism	Smith, Peterson, & Schwartz, 2002	Smith, Dugan, & Trompenaars, 1996
Loyal involvement-utilitarian involvement		
Explicit contracting	Tinsley, 1998 Tinsley, 2001	No source mentioned Tinsley, 1998
Field independence	Gibson, 1999	Oltman, Raskin, & Witkin, 1971
Future orientation	Fu et al., 2004	House et al., 1999
Autonomy-embeddedness	Smith, Peterson, & Schwartz, 2002	Schwartz, 1994
Harmony-mastery		
Masculinity	Elenkov & Manev, 2005 Smith, Peterson, & Schwartz, 2002 Volkema, 2004	Hofstede, 1980, 2001 Hofstede, 1994 Hofstede, 1980, 1991
Openness to change	Fischer & Smith, 2004	Schwartz, 1992
Self-enhancement	Morris et al., 1998	Schwartz, 1992, 1994
Self-transcendence	Tinsley & Pillutla, 1998 ¹	Schwartz, 1992
Polychronicity	Tinsley, 1998 Tinsley, 2001	No source mentioned Bluedorn et al., 1992
Pecuniary materialism	Cullen, Parboteeah, & Hoegl, 2004	Inglehart, 1997

TABLE 9.1 (continued)**Cultural Values Measured in 43 Cross-National Studies**

Cultural Value	Studies That Measured The Cultural Value	Source Cited For The Cultural Value Measured
Self-direction	Tinsley & Brett, 2001 ¹	Schwartz, 1994
Traditionality	Spreitzer, Perttula, & Xin, 2005	Farh et al., 1997
Tradition	Tinsley & Brett, 2001 ¹	Schwartz, 1994
Uncertainty avoidance	Elenkov & Manev, 2005 Fu et al., 2004 Smith, Peterson, & Schwartz, 2002 Volkema, 2004	Hofstede, 1980, 2001 House et al., 1999 Hofstede, 1994 Hofstede, 1980, 1991

¹ Studies that measured the cultural value only for validating sample differences across nations.

the other culture) or in the direction (positive in one culture but negative in the other). Using the nation as a proxy does not allow us to confidently attribute the differences observed to culture, the presumed causal or moderating agent. This is a threat to the internal validity of the study, in that some nonculture national differences, such as the macro-economic condition or even atmospheric temperature, could also play a role. A related problem in these studies is the lack of controls to rule out alternative explanations. Some such factors are sample demographics such as age and education, and contextual factors such as organizational culture. Figure 9.1 provides a broad overview of the theorized role of culture in the 93 articles and the range of topics investigated. Type I studies treated culture as an independent variable, while Type II studies treated culture as a moderating variable. We categorized the articles into either individual-focused topics or interpersonal-focused topics. Below we provide a few examples to illustrate the lack of attention to the internal validity issues by the lack of appropriate controls in these studies.

Examples from studies using culture as an independent variable

Jackson (2000) investigated the influence of corporate policy on managers' ethical decision-making in five countries. They found that corporate policy plays an insignificant role in ethical decision-making attitudes. However, perceived behavior of peers had a significant influence on attitudes toward ethics across nations. Also, the respondents' perception of top manager beliefs produced some minor national differences. In a second study involving ten nations, Jackson (2001) used the cultural values of uncertainty avoidance, individualism, and collectivism to hypothesize national differences on ethical judgments. Results largely confirmed the hypothesized differences. Managers from countries high on individualism and low on uncertainty avoidance assigned greater importance to relations with external stakeholders than did managers from countries with other cultural characteristics. However, neither study measured cultural values. Therefore, the differences could be due to unmeasured institutional factors such as degrees of industrialization, socialism, or family breakdown, which affected ethical attitudes in the Cullen, Parboteeah, and Hoegl (2004) study.

Abramson, Keating, and Lane (1996) compared the decision-style preferences of Canadian, American, and Japanese managers using MBA students. Broadly, Americans and Canadians were more similar (but not the same) to each other as compared to Japanese. Nonetheless, the findings highlighted significant differences among American, Canadian, and Japanese participants in cognitive process preferences. In particular, Canadians seemed to be more imaginative and theoretical, Americans appeared to be more realistic and practical, and Japanese seemed more open to evaluate broader information and less prone to early closure. However, this study did not measure cultural

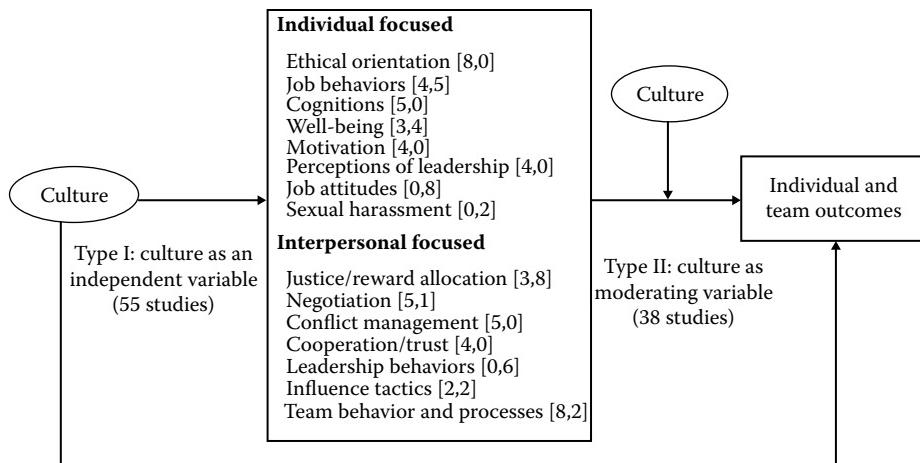


FIGURE 9.1 Two types of cross-national cross-cultural studies on individuals and teams in organizations.
Note: In the brackets are the number of Type I (first number) and Type II (second number) studies.

values and did not control for individual difference factors. This leaves open the possibility of alternative explanations, such as differences in the nature of training provided in the educational institutes in the three countries or the personalities of the respondents.

In another study involving comparison of Japanese and U.S. samples, Chikudate (1997) examined the meaning of organizational life among U.S. and Japanese supervisors and subordinates. The results show important differences in the way Japanese and Americans view authority and power. For example, Japanese managers tend to attach a lot of authority to their hierarchical positions, but American managers do not. However, the author also reported that managers and subordinates in both Japan and the U.S. locate harmony close to happiness in their cognitive maps. Because this study did not measure culture directly, it is unclear which cultural values accounted for the differences observed. Also, the results could be due to other sample differences such as gender and contextual factors such as organizational culture. Lam, Hui, and Law (1999) examined supervisors' perspectives on their subordinates' roles in four countries. Results suggested that supervisors from all four nations had broader definitions of job roles than did their subordinates. In particular, supervisors from Japan and Hong Kong included many extra-role behaviors as expected parts of their subordinates' jobs. This study neither measured culture nor included any demographic variables as controls, suggesting that alternative explanations abound for the observed differences.

Sagie, Elizur, and Yamauchi (1996) compared the achievement motivation of managers in five nations. The results were consistent with the hypotheses that achievement tendency would be highest among U.S. respondents with an individualistic orientation and lowest for the Hungarian and Japanese respondents with collectivistic orientation. However, the authors drew these conclusions without actually measuring the cultural values.

Fu and Yukl (2000) reasoned that American and Chinese managers would differ on perceived effectiveness of influence strategies due to differences in cultural values of power-distance, uncertainty avoidance, and short-term versus long-term orientation. They found that managers in the U.S. rated rational persuasion and exchange as more effective strategies than did Chinese managers. Chinese managers viewed coalition tactics, upward appeals, and gifts as the more effective influence tactics. Ralston, Vollmer, Srinivasan, Nicholson, Tang, and Wan (2001) compared views on upward influence strategies across six nations. Results suggested that there is broad agreement across countries on whether an influence tactic is seen positively or negatively. However, three distinct categories were visible as well. The Dutch and Americans viewed the use of soft influence strategies (e.g., image management) positively and hard influence strategies (e.g., coercion) negatively. Germans

and Indians considered soft strategies less acceptable than the Dutch and Americans. At the same time, they also viewed hard strategies negatively. The Mexican and Hong Kong managers viewed hard strategies as reasonably acceptable, while they saw soft strategies as less acceptable than did the Dutch and Americans. Neither the Fu and Yukl (2000) nor the Ralston et al. (2001) studies measured culture, introducing ambiguity in the cultural interpretation of the findings.

Merritt and Helmreich (1996) used samples of flight attendants and pilots from the U.S. and seven Asian countries (Hong Kong, Japan, Korea, the Philippines, Thailand, Singapore, and Taiwan) to study flight deck teamwork and leadership. A multidimensional scaling analysis produced three dimensions that corresponded to different clusters of cultural values. The responses were similar among the Asian respondents and consistent with high collectivism and high power-distance orientation. American pilots expressed values that reflected high individualism and low power-distance values. The authors suggested that the attitudinal similarity among the Asian groups could be due to the monocultural bias of the questionnaire toward the Asian group. However, the differences in sample characteristics (e.g., comparatively less work experience of the Asian respondents), which were not controlled for, could also have accounted for the observed differences.

Elenkov and Manev (2005) tested the hypothesis that cultural values would influence innovative leadership behaviors using data from 12 European nations. However, without controlling for other national characteristics such as business laws, colonization, and economic development stage, it is not clear whether the suggested differences are indeed due to cultural values rather than other factors.

Examples from studies using culture as a moderating variable

Grandey, Fisk, and Steiner (2005) examined the moderating role of emotion culture on the relationship between emotion regulation and job satisfaction using samples from France (representing impulsive culture) and the U.S. (representing institutional culture). The participants had jobs that involved frequent contact with customers (e.g., telephone sales, customer service, bank teller). Results suggested that the relationship was weaker for French employees than for American employees. However, these authors did not measure emotion culture. Therefore, one can only indirectly infer that emotion culture played the hypothesized moderating role and that other cultural or institutional factors such as customer service climate did not come into play.

Robert, Probst, Martocchio, Drasgow, and Lawler (2000) examined the moderating role of culture in the relationship between managerial practices (empowerment and continuous improvement) and job satisfaction. Results suggested that continuous improvement was positively associated with satisfaction in all samples (the U.S., Mexico, Poland, and India). However, empowerment was negatively associated with satisfaction in India but positively associated with satisfaction in the other three samples. This paper measured horizontal and vertical individualism and collectivism to validate sample differences but not to test the hypotheses. Interestingly, results suggested that India was not the most vertical culture in the sample as presumed, thereby highlighting the importance of actually measuring cultural values and then including these measures in the statistical analyses.

Using nation as a proxy, Greer and Stephens (2001) compared the tendency to escalate commitment between Mexican and American decision-makers. Consistent with the expectations that people in higher power-distance had lower tolerance for mistakes, Mexican subjects were significantly more likely to escalate and report higher confidence in their decision than were the American subjects. While the study did not measure culture, it controlled for a large number of sampling and individual differences variables. Still, the use of the nation as a proxy introduces the possibility of institutional factors beyond culture influencing the results.

Spector et al. (2004) reported that samples from Anglo regions (Australia, Canada, England, New Zealand, and the U.S.), as compared to Latino (Argentina, Brazil, Colombia, Ecuador, Mexico, Peru, and Uruguay) and Chinese (Hong Kong, People's Republic of China, and Taiwan) regions, demonstrated a stronger positive relationship between work hours and work-family stressors. The authors explained this finding by arguing that Anglos view working extra hours as taking time from their families, and that such thoughts may result in stress and related outcomes. The study based

its arguments on cross-cultural differences in terms of individualism or collectivism. However, this dimension was not measured, thus throwing open the possibility of other factors impacting the results. The authors discuss some such possibilities. In particular, they propose that differences in average household incomes, employment rates, and availability of extended family may be some such factors.

Mueller, Iverson, and Jo (1999) examined whether there were cross-cultural differences between met expectations and justice perceptions. Their study found that meeting expectations of autonomy were more influential in explaining justice evaluation in the U.S. than in Korea, whereas meeting expectations of advancement opportunities played a less important role. Cross-cultural differences were found in terms of compensation-award decisions as well. Using samples of executive education participants from China and the U.S., Zhou and Martocchio (2001) found that Chinese managers rely on work performance and personal needs when making monetary decisions but put more emphasis on the relationship with coworkers and managers when deciding on nonmonetary decisions. This paper drew cross-cultural difference arguments from the individualism/collectivism framework, but, like the Mueller et al. (1999) study, it did not measure cultural values. Also, without appropriate control variables, it is possible that other factors may influence the outcomes. For example, is it possible that personal values, rather than national culture, accounted for the relationship between met expectations and justice perceptions in the Mueller et al. study; and leadership style, rather than the cultural value of individualism or collectivism, that accounted for differences in reward allocation decisions in the Zhou and Martocchio study?

Agarwal, DeCarlo, and Vyas (1999) examined a leadership model connecting leadership style (initiation of structure and consideration) and organizational commitment. The authors concluded that the model worked relatively similarly in the U.S. and India, despite reported differences in various cultural dimensions. This study does not tell us if there is truly no cross-cultural difference or whether there are other national-level factors negating the prevalent culture-difference arguments. Pillai, Scandura, and Williams (1999) found the quality of the leader-member exchange relationship to be associated with job satisfaction in five countries. However, lack of actual measurement of cultural values and the inclusion of few control variables impose limitations on internal validity of this study.

Vigoda (2001) examined cross-national differences between perception of organizational politics and employee behavior. The results suggested that organizational politics affected employees in the U.K. more strongly than Israelis. Specifically, participants from the U.K. displayed higher exit and neglect intentions and expressed lower loyalty and job satisfaction as a result of perceived organizational politics. This study controlled for sample differences but did not measure the hypothesized cultural values. Is it possible that the organizational cultures of their companies accounted for these results, rather than the assumed cultural differences at the country level?

Summary

Each of the 93 studies published in the 16 leading journals was well conceived and executed, providing new insights into various aspects of organizational behavior in the nations studied. However, a majority of the studies (60 out of 93) used country as a proxy for culture. Among the 93 papers, only six included other national characteristics (e.g., national wealth) as controls, and only 23 controlled for individual differences such as age, gender, or education. Of the 33 studies that measured cultural values, only seven included nation as a control variable. This suggests that in most of the studies, alternative explanations are possible for the observed effects. While each study makes a contribution to knowledge, the use of nation as a proxy and the lack of controls compromise our confidence that the observed differences in organizational behavior are exclusively due to the hypothesized cultural values.

PROBLEM 3: MISMATCH IN THE LEVEL OF ANALYSIS BETWEEN THEORY AND METHOD

The level of analysis is defined by the level at which the hypotheses are specified, and it should be matched by the level at which the construct is measured and the hypotheses tested. Individual level means both the independent and the dependent variables are measured at the individual level and the hypotheses are tested at that level. Group or national level means both constructs are measured and hypotheses are tested at that level. Cross-level studies involve the integration of a higher level characteristic (national culture) with lower level processes (individual and group behavior). Therefore, all cross-national studies of individual or team phenomena are cross-level by definition. However, only four of the 93 studies are cross-level designs, with culture measured at a higher level than employee responses, and hypotheses tested using multilevel statistical procedures (e.g., Cullen et al., 2004; Hui, Au, & Fock, 2004). The remaining 89 studies (96 percent) are single-level studies, with 78 at the individual level, three at the work group level, and seven at the national level. The dominance of single-level design is truly surprising given the multilevel nature of the phenomena inherent in cross-national studies. We provide a few examples to illustrate the problem of testing a cross-level phenomenon using a single-level research design.

Peterson et al. (1995) conducted an interesting study of the relationship between Hofstede's four cultural values and role stress (indicated by role conflict, role ambiguity, and role overload—an individual's lack of personal resources needed to fulfill commitments, obligations, or requirements) experienced by individuals in 21 nations with about 100 middle managers from each nation. They aggregated the managers' responses on the role stress to the national level and analyzed the relationship between the four cultural values and the three role stress variables. They found that power distance and collectivism related negatively to role ambiguity and positively to role overload. The implication is that a nation's cultural values influence role stress of individuals within that nation. Van de Vliert and Van Yperen (1996) challenged the Peterson et al. study, contending that this correlation could be an artifact of differences in climate (see Tavassoli, this volume). Using the original data from Peterson et al., they found a positive correlation between average temperature and role overload, even after controlling for power distance and a host of other national economic indicators. Peterson and Smith (1997), however, found flaws in the sampling and design of the Van de Vliert and Van Yperen (1996) study. Based on a larger sample of 32 nations and a more refined index of temperature (that of the city in which the role-stress measure was obtained), they found that power distance was related to both role overload and role ambiguity even after temperature was controlled. Furthermore, the correlation of temperature and role-stress was not significant after controlling for power distance. However, although these authors advanced our awareness of the need for better theorizing and appropriate controls to strengthen the internal validity of the study, they were victims of another threat, that is, an ecological fallacy that can result when individual experiences (role stress) are inferred from a group-level measure (aggregated role stress). Their studies are ideally suited to the use of a multilevel modeling technique like HLM (Bryk & Raudenbush, 1992) or MLwiN (Goldstein et al., 1998).

The multilevel statistical techniques could also address the problems inherent in using regression and ANOVA. A majority of the single-level studies used the regression technique, and about a third used the ANOVA approach. Both approaches require the assignment of a nation code to each individual or team, known as the disaggregating of high-level attributes to the lower level (Klein & Kozlowski, 2000). The problems of disaggregating a higher-level measure to a lower-level entity are well-known. In particular, doing so violates the assumption of independence of data required in regression. Moreover, it produces biased standard errors and parameter estimates. Thus, most studies using this approach involve biased estimates of the effects of national culture on lower-level responses.

PROBLEM 4: INSUFFICIENT ATTENTION TO CONSTRUCT VALIDITY ACROSS SAMPLES

Cross-cultural scholars have highlighted the importance of ensuring measurement equivalence before testing theoretical relationships (e.g., Cavusgil & Das, 1997; Riordan & Vandenberg, 1994; Schaffer & Riordan, 2003). The most frequently used tests are configural and metric equivalence or invariance (Vandenberg & Lance, 2000). Configural invariance refers to the equality of factor structures, or equal number of factors and factor patterns. It is achieved by good fit indices on the single-sample confirmatory factor analysis (CFA). Metric invariance exists when the factor-loading parameters are equal across groups by using a multigroup CFA and comparing changes in fit indexes between the constrained and unconstrained models. Among the 93 studies reviewed, 23 percent reported the configural equivalence test, while 22 percent reported the additional metric equivalence test. Testing for equivalence, however, does not mean achieving it. Parboteeah, Cullen, Victor, and Sakano (2005), for example, performed a metric equivalence test and found the Japanese factor structure of a company's ethical climate to be different from that of the American sample. The authors selected different items to construct culture-specific factors and performed separate CFAs. While this does not satisfy the metric equivalence requirement, it improves the meaning equivalence of the construct across cultures.

Interestingly, using different indicators to measure the same constructs in different samples is not a new procedure. More than ten years ago, Janssens, Brett, and Smith (1995) adopted this approach in their study of a safety policy in three countries: the U.S., France, and Argentina. They found two items failing to converge in the factor analysis of the French data and one item failing in the Argentinean data. Instead of dropping these items from all three samples, as most scholars would do, they replaced them with constants or imagery variables in the French and Argentinean data. Baumgartner & Steenkamp (1998) have offered a statistical procedure to test the equivalence of multigroup latent variable models involving different numbers of items and factors. Given the availability of this approach at the beginning of the period in our review (1995), we were surprised that only one study among the 93 employed this imagery variable method.

Beyond statistical test of equivalence, a more important consideration is the equivalence in the meaning of the constructs and the meaningfulness of the indicators used to operationalize the constructs. Almost all the studies used the back-translation procedure, but only a few studies paid attention to the semantic or meaning equivalence across cultures. Further, only a few studies used interviews to identify emic measures, such as the conception of organizational life (Chikudate, 1997) or the meaning of teamwork (Gibson & Zellmer-Bruhn, 2001). In sum, there is some attention paid to establishing measurement equivalence but not sufficient consideration of construct validity in terms of meaning equivalence across samples.

PROBLEM 5: WITHIN-NATION VARIATION IN CULTURE IS LARGELY IGNORED

Using nation as a proxy for culture carries a "fallacious assumption of cultural homogeneity within nations" (Tung, 2008, p. 41). Culture is a multilevel, multilayered construct (Naylor, 1996). Within a single nation, sources of variation in cultural values could include geographical region, industry, ethnicity, and generation. Culture can also change over time. For example, value changes are occurring in China, with the younger generation carrying more individualistic values while the older generations continue retaining a higher level of collectivism (Ralston et al., 2006). Many scholars (e.g., Au, 1997; Earley, 1993; Markus & Kitayama, 1991; Triandis, 1989) have suggested that there is variation in individual experiences of culture, and others have found considerable within-nation variation on many culture dimensions (e.g., Strauss & Quinn, 1997; Triandis, 1995). For example, Dorfman and Howell (1988) adapted Hofstede's (1980) ecological construct of culture to capture cultural variations at the individual level. Their scales can predict different loci of commitment among culturally diverse employees in the U.S. (Clugston, Howell, & Dorfman, 2000). Clearly, most scholars acknowledge that there is variance within a nation on any cultural attribute, and

some suggest treating national culture as an individual-differences variable (Erez & Earley, 1993; Triandis, 1995). Nations could vary both in the extent to which individuals within it share the cultural value and the extent to which deviation from cultural norms are tolerated, as captured by the idea of tight versus loose culture (Pelto, 1968; Triandis, 1989). Ignoring the possibility of within-nation variance on cultural values could lead to misspecification of the influence of culture when analyzing management issues at the individual level. Given the long-existing discussion on this issue, it is surprising that most of the studies published in the leading journals have treated culture as a nation-level variable, resulting in potentially a wide margin of error in specifying the influence of culture on employees.

An ideal research design would be to measure cultural values at the individual level but also include cultural values at the national level (as two independent measures using different indicators) to estimate the influence of one controlling for the other or to estimate the relative influence of each, depending on the theoretical question being asked. Seven of the 93 studies in this analysis employed a version of this approach (e.g., Chen & Li, 2005; Gibson, 1999; Gomez, Kirkman, & Shapiro, 2000) by measuring culture at the individual level and controlling for the influence of national culture through a nation proxy. Because these studies did not measure national culture, it is still impossible to determine if national culture exerted any meaningful influence on employees and teams within organizations, a basic thesis of the 93 studies.

SOME MODEST SOLUTIONS

On the basis of the research on cross-cultural organizational behavior published in 16 leading management journals in the past ten years, progress is evident in many areas. We now know more about negotiation and conflict behavior, ethical orientation, job attitudes, reward-allocation preferences, well-being, and leadership in different nations. The research designs for studies are also becoming more rigorous through the use of methods other than surveys, affording stronger internal validity. More than a third of the studies measure the cultural values and use those values in hypothesis testing. About a fourth of the studies apply statistical tests to ensure measurement equivalence (either configural or metric equivalence, or both).

The progress, however, is overshadowed by several nagging conceptual and methodological problems. The fundamental concept of culture has not been systematically examined along a proliferation of cultural frameworks with overlapping dimensions and inconsistent measurement. Researchers have largely ignored the fact that culture co-exists with other national characteristics. The inadequate consideration of other factors and the failure to control for alternative causes compromised the internal validity of many studies. Further, most researchers have ignored the essentially cross-level nature of the phenomena in both their theory development and their empirical work and have neglected the possibility of within-nation variation on cultural values. While these issues may have hindered progress in cross-national management research, they may typify cross-cultural research in general (Gelfand et al., 2007). We offer five modest but hopefully promising solutions to address these foundational issues with the goal of stimulating advances in future research. Although some of these solutions are not new, the persistence of these nagging problems in even the best research suggests the importance of reiterating them.

SOLUTION 1: CLARIFY THE GROUP PROPERTIES OF CULTURE

Without exception, the definitions of culture refer to it as a group-level construct that demarcates one group from another. As discussed by Klein and Kozlowski (2000), a group construct can have one of three types of properties: global, shared, or configurational. A global property is a relatively objective, easily observable characteristic that does not emerge or originate from the perceptions of individual group members. Examples of the global property of a nation are population, Gross Domestic Product (GDP), or the number of museums per capita. A shared property originates in

the common experiences, perceptions, cognitions, or behaviors of the individuals within a group. It represents a consensual or collective aspect of the group. Most students of culture in the current literature assume a shared property of this construct. A configural property captures the variability of the individual characteristics within a group. Like shared properties, configural properties emerge from characteristics of individual group members. Unlike shared properties, however, they are not expected to have a consensual element. Examples of a configural property are income disparity or value differences between people in different ethnic groups or regions within a country.

Many culture researchers have recognized within-nation variations (a configural property) in cultural values (e.g., Dorfman & Howell, 1988; Earley, 1993; Markus & Kitayama, 1991; Strauss & Quinn, 1997; Triandis, 1989, 1995). However, it is not uncommon to find most published work to have treated culture either as a global property using nation as a proxy, or as a shared property using mean scores of culture values. Treating culture as a global construct, especially the use of nation as a proxy for culture, does not provide insight into how culture influences individual behaviors in different national contexts. Studies at the country level (e.g., Huang & Van de Vliert, 2003; Peterson & Smith, 1997) often relied on the Hofstede (1991, 1994) scores, which are mean country-level scores aggregated from individual responses, again reflecting the assumption of a shared property of culture. The lack of attention to the potential configural nature of culture has resulted in missing an important opportunity for a more refined understanding of the nature and influences of culture.

There is potential for interesting theory development by focusing on the variance of culture held by the individuals in a nation. Following the work of Pelto (1968) and Triandis (1989), Gelfand, Nishii, and Raver (2006) elaborated on the tightness or looseness of a culture, which they defined as the strength of social norms and degree of sanctioning when a member's behavior deviates from a society's social norms. The implication is that in a context with loose norms, there is more tolerance for variations in individual beliefs and behaviors. Therefore, it is conceivable that cultural values would have a shared property in nations with tight norms and a configural property in nations with loose norms. In other words, the same cultural value, for example, individualism or power distance, may have different properties in the context of a loose or a tight culture. We encourage future scholars to theorize on the configural nature of the culture concept to develop new insight on the experiences of individual and team behavior within such cultures.

An *intersubjective consensus* approach (Wan & Chiu, this volume) to culture provides another means to study variance in culture. This approach accommodates the possibility of both an objective culture (possibly a global or a shared property) and a subjective culture (capturing the configural property). The intersubjective approach depends on perceptions of people about their own culture. Occasionally, this perception might be different from objective reality or from the opinions of others or outsiders. This approach indicates the degree of consensus among members who share key values, beliefs, and practices. High intersubjective consensus is likely to be associated with Gelfand et al.'s (2006) notion of a tight culture, as discussed above. On the other hand, low intersubjective consensus is likely to be associated with loose culture. The intersubjective approach opens up the possibility that the broader national culture may comprise of many subcultures, each of which may have high intersubjective consensus. In this situation, the configural property describes the broader culture, while the shared property describes each subculture.

SOLUTION 2: TREAT CULTURE AS CONFIGURATIONS OR PATTERNS

The seminal work by Hofstede (1980) has provided a cultural framework that has guided cross-cultural research for over 25 years. However, the field is now rich with many other cultural frameworks (e.g., those of Triandis, Schwartz, Singelis, and Trompenaars). Recently, House et al. (2004), through a ten-year effort, developed a set of nine cultural values relating to both national and organizational culture. This suggests that the field now has more choices in terms of cultural frameworks. But this increased choice is not without its cost. It perpetuates the lack of a paradigm and is a hindrance to

the accumulation of knowledge. Further, the trait approach, treating cultural values as independent dimensions, continues to dominate current research.

There is a critical need for a consolidation of different cultural frameworks and their measurement with the aim to develop a parsimonious categorization of cultural values. Culture is a latent, hypothetical construct, and most definitions refer to culture as a pattern. It is not a list of independent dimensions, but is “the integrated, complex set of interrelated and potentially interactive patterns characteristic of a group of people” (Lytle, Brett, Barsness, Tinsley, & Janssens, 1995, p. 170). Research in organizational culture has shown that a configuration of cultural values predicts outcomes differently than a set of independent culture dimensions (Tsui, Song, & Yang, 2007). Further work on the construct validity of culture should include the development of a configuration model. Lytle et al. (1995) offer a preliminary categorization. They identify over 70 dimensions grouped into six categories: (1) definition of self, (2) motivational orientation, (3) relation between societal members, (4) pattern of communication, (5) orientation toward time, change, and uncertainty, and (6) pattern of social institutions and social systems. However, a categorization is not a configuration. A configuration model should include different combinations of the cultural values or dimensions with each configuration or pattern describing a particular nation or groups of nations. For example, synthesizing the results of eight empirical studies, Ronen and Shenkar (1987) clustered countries, with each cluster having a different configuration or pattern of similarity in employee work attitudes. Hofstede’s (1980) original framework identifies countries with similar profiles on cultural values. Subsequent empirical research has not followed up on this profile approach. In general, the abundance of culture dimensions and corresponding measures do not necessarily advance our knowledge on culture. We need a consolidation of cultural values and development of configuration models to achieve both conceptual clarity and parsimony.

SOLUTION 3: ADOPT A POLYCONTEXTUAL APPROACH TO ISOLATE CULTURAL INFLUENCE FROM OTHER NATIONAL CHARACTERISTICS

Nation and culture do not completely overlap, in that nations differ in many aspects beyond cultural values. This leads to the debate on whether cultural or national characteristics drive differences in individual behavior across nations (Busenitz, Gomez, & Spencer, 2000; Erez & Earley, 1993). Thus, the results of the studies that have used nation as a proxy without directly measuring culture are difficult to interpret for at least two reasons: First, they do not take into account possible within-nation variation in a cultural value (Au, 1997; Clugston et al., 2000; Tung, 2008); second, they do not identify many other factors beyond culture that might account for differences in behavior across nations. Because of the multiplicity of the context, scholars have introduced the word *polycontextualization* (Von Glinow, Shapiro, & Brett, 2004) to describe the process of incorporating multiple contexts for a holistic and valid understanding of any phenomenon. Shapiro, Von Glinow, and Xiao (2007) further argue that much of current research, cross-cultural or monocultural, tends to rely on a single context—the verbal medium. They propose a “polycontextually sensitive” research method to guide cross-cultural research. Polycontextually sensitive research methods require identifying the many senses of knowing or *sense-making* by which cultural understanding can occur (Shapiro et al., 2007). In other words, senses of knowing can have many sources that can be traced to the nation’s economic, political, geographic, or historic contexts. Including the influence of multiple contexts will provide for both better theory development and better isolation of culture effects.

Synthesizing the ideas of various scholars, Figure 9.2 provides a partial list of national contexts that might be relevant in analyzing organizational behavior in different nations. Other scholars can replace the dependent variables according to their research questions and focus. The major contexts that separate one nation from another include the physical, historical, political, economic, social, and cultural. These contexts provide the foundation for different ways of knowing by people in that nation. The ways of knowing include physical (e.g., the meaning of time or space), communication

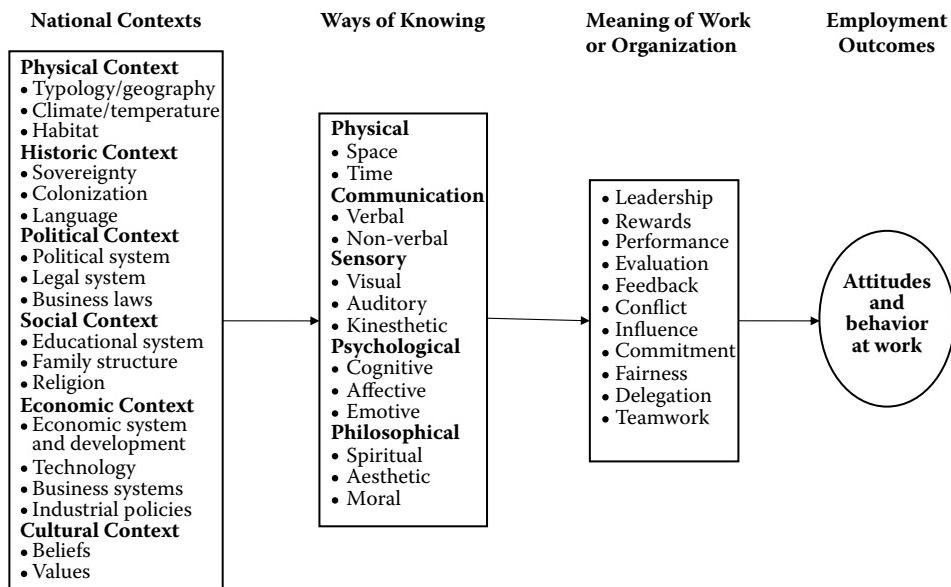


FIGURE 9.2 A polycontextual approach to cross-national, cross-cultural organizational behavior research.

(reliance on verbal or nonverbal means), sensory (attention to visual, auditory, or kinetic cues), psychological (decision-making style, information processing, or display of emotion), or philosophical (moral or spiritual bases of decision making). These ways of knowing, in turn, determine the meaning of work, organizations, or other life experiences. The core idea is that the multiple contexts give rise to different sources of meaning, which in turn influence how people perceive work and organizations and how they respond in terms of work behaviors and related organizational outcomes.

As shown in the research by Den Hartog, House, Hanges, and Ruiz-Quintana (1999) and Brodbeck et al. (2000), employees in different nations carry different implicit leadership theories or different leadership prototypes. Similarly, employees in different nations have different mental images or metaphors of teamwork (Gibson & Zellmer-Bruhn, 2001). Focusing on social institutions and using a sample of 26 nations with over 30,000 employees, Parboteeah and Cullen (2003) found work centrality of employees to relate to five national characteristics beyond culture. They are the level of industrialization (measured by energy use), union strength (percentage of workforce unionized), educational accessibility (by United Nations Development Program's education attainment score), social inequity (Gini index of income), and socialism (central government expenditure as a percentage of Gross National Product, or GNP). These effects were obtained after controlling for the three cultural values of uncertainty avoidance, individualism, and masculinity. In an 84-nation analysis of survey responses from 19,525 managers, Van de Vliert and Smith (2004) found leader reliance on subordinates for information or delegation to vary with the nation's development (a combined index of per capita income, educational attainment, and life expectancy) and harshness of climate. These findings remained after controlling for the cultural values of power distance and uncertainty avoidance. The authors used these findings to propose an ecological leadership theory.

These studies show that cross-national studies need to expand beyond using culture as meaningful differentiators. In particular, the results of these studies illustrate the value of including other national differentiators for building more refined and valid theories of cross-national differences in organizational behavior and performing a more valid analysis of the influence of culture. Polycontextualization implies a multidisciplinary approach to theory building because it needs to draw theories from not only psychology and sociology but also economics, anthropology, political science, and so forth. Although challenging, this approach has a great promise to isolate the

influence of culture from other national attributes and provide valid and holistic insight into individual and team behavior in different national contexts. Along this line, building on a co-evolution perspective and using a multilevel approach, Lewin and Kim (2004) advocated the use of nation-state institutional configurations* to study comparative management practices and organizational adaptation, innovation and change.

The polycontextual approach complements the “configuration” idea of cultural values. While *culture* is a composite of many cultural manifestations, *nation* is a composite of both cultural and noncultural factors. We advocate not only moving away from studies of one or few culture dimensions toward a configuration, but also incorporating noncultural factors that differentiate one nation from another. Narrow models focusing on a few cultural values provide limited understanding of relationships across societies. We encourage developing models that incorporate a high level of theorization to account for interactions among culture values (configuration) and that includes other contextual factors (polycontextualization). This is the type of midrange cross-cultural theory advocated by Lytle et al. (1995).

SOLUTION 4: GO BEYOND BACK-TRANSLATION AND MEASUREMENT EQUIVALENCE

Valid studies begin with valid measurement. A careful translation and back-translation process is a good first step but not sufficient. As Farh, Cannella, and Lee (2006) pointed out, translation is not the best approach to ensure construct validity across cultures. In fact, translation may not be meaningful if the construct does not carry the same meaning in different cultures. Farh et al. (2006) described three other approaches: adaptation, de-contextualization, and contextualization. The latter two involve the development of new scales. De-contextualization develops context-free measures that are meaningful and useful in many cultures. The contextualization approach develops context-specific scales that may be meaningful in one culture but not necessarily in another. Whether Chinese concepts like *guanxi* (Chen, Chen, & Xin, 2004), “face,” or *renqing* variables (Liu, Friedman, & Chi, 2005) are meaningful in other cultural contexts awaits conceptual and empirical verification. In essence, the translation/back-translation procedure (Brislin, 1980) is no longer sufficient to ensure the validity of measures across cultures.

If construct development identifies a construct with similar meaning across cultures but involves different indicators, cross-cultural researchers usually retain the common items and delete those that fail to converge in another sample. However, this “pseudo-etic” approach, by using a reduced set of common items, can be detrimental to the construct validity of the measure. A long time ago, Berry (1969) argued that a measurement instrument for use in more than one country should contain items common across countries and items that are country-specific. Indeed, Gelfand et al. (2001) found that American and Japanese negotiators have both etic, or universal, and emic, or culture-specific, construals of conflict. Parboteeah et al. (2005) needed to use different items to construct culture-specific measures of ethical climate for the Japanese and the American samples. Most cross-cultural researchers have applied emic measures from one nation (usually the U.S.) to other nations and assumed that they are etic. This detracts from progress. Researchers should strive to ensure equivalence of meaning of the construct through inductive methods of verification as well as the use of emic indicators, if warranted, in the statistical tests of construct equivalence (Baumgartner & Steenkamp, 1998). The use of etic indicators that are not equally meaningful in all the cultures may create an unnecessary barrier to achieving construct equivalence across samples. Tang et al. (2006) tested the measurement equivalence of a simple nine-item love-of-money scale in 29 geopolitical entities. Only 17 samples passed the metric equivalence test. More samples might have

* This nation-state institutional configuration idea is similar to the polycontextual approach described in Shapiro et al. (2007). The polycontextual approach focuses on both structural conditions and ways of knowing or meaning interpretations. Configurations, according to Lewin and Kim, reflect the founding conditions of a nation and the natures of its government, legal and education systems, capital market, and culture.

achieved construct equivalence if the researchers had identified emic items for different regions. While the efforts to identify the emic indicators are demanding, the combined etic-emic approach has a good potential to improve construct validity in different samples and construct equivalence across samples.

SOLUTION 5: DEVELOP CROSS-CULTURAL THEORIES THROUGH DEEP CONTEXTUALIZATION

The studies that treat culture as a moderator tend to test a theory of management developed in a specific context such as the U.S. and examine its applicability in another context. For example, Wasti, Bergman, Glomb, and Drasgow (2000) examined whether an American model of sexual harassment (Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997) is generalizable to Turkey, a culture that is more patriarchal than the U.S. Huang and Van de Vliert (2003) examined whether culture changes the relationship between job characteristics and job satisfaction in 49 nations. Hui et al. (2004) analyzed the relationship between empowerment and job satisfaction contingent upon the nation's power distance value. Robert et al. (2000) examined whether the relationship between managerial practices of empowerment and continuous improvement to job satisfaction varies across four nations. Thomas and Pekerti (2003) found that nationality (Indonesia representing vertical collectivism and New Zealand representing horizontal individualism) moderated the relationship between job satisfaction and exit, loyalty and neglect, but not voice (expressing concerns and offering solutions). Yang, Chen, Choi, and Zou (2000) found that family demand had a stronger effect on work-family conflict in the U.S. than in China. On the other hand, work demand had a stronger effect in China than in the U.S. Leung, Su, and Morris (2001) found Chinese respondents to react less negatively to supervisory criticism compared to U.S. respondents.

Whetten (2009) considered this borrowing, wherein a theory developed in one context is applied to a different context, to be reasonable. On the other hand, he also encouraged "systematic borrowing." That is, the theoretical application should take into account theoretically relevant contextual differences. However, the color of the borrowed lens may tint one's vision. We are not optimistic that starting with an existing theory will allow the scholar to see a phenomenon in a novel context in its true color or form. Indeed, using a borrowed lens may have accounted for the lack of differences found in several studies (e.g., Agarwal et al., 1999; Glazer & Beehr, 2005; Pillai, Scandura, & Williams, 1999). To complement systematic borrowing, Tsui (2007) encourages in a process of "deep contextualization," and Whetten (2009) suggests several strategies to refine or develop new theories of management that are meaningful within a novel culture or across cultures.

Through deep contextualization (including attention to cultural assumptions, unique meaning of constructs, and intra-national variation in culture), there are opportunities to develop theories on cross-level direct effects and cross-level moderating effects as well as cross-level "frog-pond effects" (Klein & Kozlowski, 2000). In a frog-pond effect, the experience of culture may depend on the position of the individual relative to the context. For example, reactions to work-family conflict for male workers in a masculine culture may be different from reactions of male workers in a feminine culture. Contextualization is essentially adding one more level to theorization by accounting for the effect of contextual characteristics such as culture on the behavior of individuals, teams or organizations within that culture. Multilevel or multilayered theories incorporating the influence of culture would yield innovative theories that are meaningful in both novel and familiar contexts. Doing so will also advance cross-cultural research in general.

For example, although their study was not a test of a novel theory, Liu et al. (2005) compared the role of culturally sensitive individual difference factors in two different cultures. They found that U.S. negotiators who scored high in extraversion or agreeableness (Western personality traits) achieved lower economic gains because these negotiators were more willing to engage socially with the other parties, release more information, and open with less aggressive offers. These personality attributes, however, did not affect the Chinese negotiators. The latter, in turn achieved lower economic gains if they scored higher on harmony, face, or *renqing* (three individualized Chinese

cultural norms) because they were concerned about preservation of inner peace, interpersonal concord, reciprocity, or enhancement of their public images. The U.S. negotiators were not sensitive to these attributes. This study appears to have implications beyond obvious statistical results. It is possible that the personality attributes developed in the West may not be meaningful for the Chinese subjects, while the Chinese cultural norms may not be meaningful for the American subjects. The Chinese authors' deep knowledge of Chinese culture allows them to identify cultural variables important for the Chinese in the negotiation setting. Without such knowledge, our knowledge of negotiators' behavior would be limited only to the variables identified by American scholars and meaningful only to the American negotiators. This study is a good illustration of refining and extending existing theories through (deep) contextualization.

CONCLUSION

Cross-cultural research in organizational behavior over the past decade published in the leading journals shows substantial progress, but a few nagging problems persisted. The challenges of organizational behavior research in the cross-national context in specific or cross-cultural research in general are to ensure the construct validity of the culture concept, to include other national differentiators for improving the internal validity of the findings, and to strengthen the research design by measuring culture at the appropriate level and including meaningful controls. We have offered a few modest solutions to these nagging concerns. We hope that these suggestions will facilitate advances in cross-cultural issues across different national contexts.

NOTE

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REFERENCES

- Abramson, N. R., Keating, R. J., & Lane, H. W. (1996). Cross-national cognitive process differences: A comparison of Canadian, American and Japanese managers. *Management International Review*, 36, 123–147.
- Adair, W. L., Okumura, T., & Brett, J. M. (2001). Negotiation behavior when cultures collide: The United States and Japan. *Journal of Applied Psychology*, 86, 371–385.
- Agarwal, S., DeCarlo, T. E., & Vyas, S. B. (1999). Leadership behavior and organizational commitment: A comparative study of American and Indian salespersons. *Journal of International Business Studies*, 30, 727–748.
- Au, K. (1997). Another consequence of culture-intra-cultural variation. *International Journal of Human Resource Management*, 8, 743–755.
- Baumgartner, H., & Steenkamp, J.-B. E. M. (1998). Multi-group latent variable models for varying numbers of items and factors with cross-national and longitudinal applications. *Marketing Letters*, 9, 21–35.
- Berry, J. W. (1969). On cross-cultural comparability. *International Journal of Psychology* 4, 119–128.
- Bluedorn, A. C., Kaufman, C. F., & Lane, P. M. (1992). How many things do you like to do at once? An introduction to monochronic and polychronic time. *Academy of Management Executive*, 6, 17–26.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Boston: Allyn & Bacon.
- Brockner, J., Ackerman, G., Greenberg, J., Gelfand, M. J., Francesco, A. M. F., Chen, Z. X., Leung, K., Bierbrauer, G., Gormez, C., Kirkman, B. L., and Shapiro, D. (2001). Culture and procedural justice: The influence of power distance on reactions to voice. *Journal of Experimental and Social Psychology*, 37, 300–315.
- Brockner, J., Chen, Y.-R., Mannix, E. A., Leung, K., & Skarlicki, D. P. (2000). Culture and procedural fairness: When the effects of what you do depend on how you do it. *Administrative Science Quarterly*, 45, 138–193.

- Brodbeck, F. C., Frese, M., Akerblom, S., Audia, G., Bakacsi, G., Bendova, H., et al. (2000). Cultural variation of leadership prototypes across 22 European countries. *Journal of Occupational and Organizational Psychology*, 73, 1–29.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage Publications.
- Busenitz, L., Gomez, C., & Spencer, J. W. (2000). Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43, 994–1003.
- Cavusgil, S. T., & Das, A. (1997). Methodological issues in empirical cross-cultural research: A survey of the management literature and a framework. *Management International Review*, 37, 71–96.
- Chan, K. Y., & Drasgow, F. (2001). Toward a theory of individual differences and leadership: Understanding the motivation to lead. *Journal of Applied Psychology*, 86, 481–498.
- Chen, C. C., Chen, Y. R., & Xin, K. (2004). Guanxi practices and trust in management: A procedural justice perspective. *Organization Science*, 15, 200–209.
- Chen, C. C., Meindl, J. R., & Hui, H. (1998). Deciding on equity or parity: A test of situational, cultural, and individual factors. *Journal of Organizational Behavior*, 19, 115–129.
- Chen, X. P., & Li, S. (2005). Cross-national differences in cooperative decision-making in mixed-motive business contexts: The mediating effect of vertical and horizontal individualism. *Journal of International Business Studies*, 36, 622–636.
- Chikudate, N. (1997). Exploring the life-world of organizations by linguistic oriented phenomenology in sub-cultural analysis of organizations: A comparison between Japanese and U.S. banks. *Management International Review*, 37, 169–183.
- Clugston, M., Howell, J. P., & Dorfman, P. W. (2000). Does cultural socialization predict multiple bases and foci of commitment? *Journal of Management*, 26, 5–30.
- Cullen, J. B., Parboteeah, K. P., & Hoegl, M. (2004). Cross-national differences in managers' willingness to justify ethically suspect behaviors: A test of institutional anomie theory. *Academy of Management Journal*, 47, 411–421.
- Den Hartog, D. N., House, R. J., Hanges, P. J., & Ruiz-Quintana, S. A. (1999). Culture specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/transformational leadership universally endorsed? *Leadership Quarterly*, 10, 219–256.
- Dorfman, P. W., & Howell, J. P. (1988). Dimensions of national culture and effective leadership patterns: Hofstede revisited. *Advances in International Comparative Management*, 3, 127–150.
- Earley, P. C. (1993). East meets West meets Mideast: Further explorations of collectivistic and individualistic work groups. *Academy of Management Journal*, 36, 319–348.
- Earley, P. C. (1994). The individual and collective self: An assessment of self-efficacy and training across cultures. *Administrative Science Quarterly*, 39, 89–117.
- Earley, P. C. (1999). Playing follow the leader: Status-determining traits in relation to collective efficacy across cultures. *Organizational Behavior and Human Decision Processes*, 80, 192–212.
- Earley, P. C., & Erez, M. (1997). *The transplanted executive*. New York: Oxford University Press.
- Earley, P. C., Gibson, C. B., & Chen, C. C. (1999). "How did I do?" versus "How did we do?" Cultural contrasts of performance feedback use and self-efficacy. *Journal of Cross-Cultural Psychology*, 30, 594–619.
- Elenkov, D. S., & Manev, I. M. (2005). Top management leadership and influence on innovation: The role of sociocultural context. *Journal of Management*, 31, 381–402.
- Ensari, N., & Murphy, S. E. (2003). Cross-cultural variations in leadership perceptions and attribution of charisma to the leader. *Organizational Behavior and Human Decision Processes*, 92, 52–66.
- Erez, M., & Earley, P. C. (1987). Comparative analysis of goal-setting strategies across cultures. *Journal of Applied Psychology*, 72, 658–665.
- Erez, M., & Earley, P. C. (1993). *Culture, self-identity and work*. New York: Oxford University Press.
- Farh, J. L., Cannella, A. A. J., & Lee, C. (2006). Approaches to scale development in Chinese management research. *Management and Organization Review*, 2, 301–318.
- Farh, J. L., Earley, P. C., & Lin, S. C. (1997). Impetus for action: A cultural analysis of justice and organizational citizenship behavior in Chinese society. *Administrative Science Quarterly*, 42, 421–444.
- Fischer, R., & Smith, P. B. (2004). Values and organizational justice: Performance- and seniority-based allocation criteria in the United Kingdom and Germany. *Journal of Cross-Cultural Psychology*, 35, 669–688.
- Fiske, A. P., Kitayama, S., Markus, H. R., & Nisbett, R. E. (1998). The cultural matrix of social psychology. In D. T. Gilbert, S. T. Fiske, and G. Lindzey (Eds.) *The handbook of social psychology*. (Volume 2, pp. 915–980) Boston; McGraw-Hill.

- Fitzgerald, L. F., Drasgow, F., Hulin, C. L., Gelfand, M. J., & Magley, V. J. (1997). Antecedents and consequences of sexual harassment in organizations: A test of an integrated model. *Journal of Applied Psychology*, 82, 578–589.
- Friedman, T. L. (2005). *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus and Giroux.
- Fu, P. P., Kennedy, J., Jasmine, T., Yukl, G., Bond, M. H., Peng, T. K., et al. (2004). The impact of societal cultural values and individual social beliefs on the perceived effectiveness of managerial influence strategies: A meso approach. *Journal of International Business Studies*, 35, 284–305.
- Fu, P. P., & Yukl, G. (2000). Perceived effectiveness of influence tactics in the United States and China. *Leadership Quarterly*, 11, 251–266.
- Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annual Review of Psychology*, 58, 1–35.
- Gelfand, M. J., Higgins, M., Nishii, L. H., Raver, J. L., Dominguez, A., Murakami, F., Yamaguchi, S. A., & Toyama, M. (2002). Culture and egocentric perceptions of fairness in conflict and negotiation. *Journal of Applied Psychology*, 87, 833–845.
- Gelfand, M. J., Nishii, L. H., Holcombe, K. M., Dyer, N., Ohbuchi, K.-J., & Fukuno, M. (2001). Cultural influences on cognitive representations of conflict: Interpretations of conflict episodes in the United States and Japan. *Journal of Applied Psychology*, 86, 1059–1074.
- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, 91, 1225–1244.
- Gelfand, M. J., & Realo, A. (1999). Individualism-collectivism and accountability in intergroup negotiations. *Journal of Applied Psychology*, 84, 721–736.
- Ger, G. (1999). Localizing in the global village: Local firms competing in global markets. *California Management Review*, 41, 64–83.
- Gibson, C. B. (1999). Do they do what they believe they can? Group efficacy and group effectiveness across tasks and cultures. *Academy of Management Journal*, 42, 138–152.
- Gibson, C. B., & Zellmer-Bruhn, M. E. (2001). Metaphors and meaning: An intercultural analysis of the concept of teamwork. *Administrative Science Quarterly*, 46, 274–303.
- Glazer, S., & Beehr, T. A. (2005). Consistency of implications of three role stressors across four countries. *Journal of Organizational Behavior*, 26, 467–487.
- Goldstein, H., Rasbash, J., Plewis, I., Draper, D., Browne, W., Yang, M., et al. (1998). *A user's guide to MLwiN*. London: Institute of Education, University of London.
- Gomez, C., Kirkman, B. L., & Shapiro, D. L. (2000). The impact of collectivism and in-group/out-group membership on the evaluation generosity of team members. *Academy of Management Journal*, 43, 1097–1106.
- Grandey, A. A., Fisk, G. M., & Steiner, D. D. (2005). Must "service with a smile" be stressful? The moderating role of personal control for American and French employees. *Journal of Applied Psychology*, 90, 893–904.
- Greer, C. R., & Stephens, G. K. (2001). Escalation of commitment: A comparison of differences between Mexican and U.S. decision-makers. *Journal of Management*, 27, 51–78.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.
- Hofstede, G. (1984). National cultures and corporate cultures. In L. A. Samovar & R. E. Porter (Eds.), *Communication between cultures*. Belmont, CA: Wadsworth.
- Hofstede, G. (1994). *Values survey module 1994 manual*. Maastricht, Netherlands: Institute for Research on Intercultural Cooperation.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.
- Hofstede, G., Deusen, C. A. V., Mueller, C. B., & Charles, T. A. (2002). What goals do business leaders pursue? A study in fifteen countries. *Journal of International Business Studies*, 33, 785–803.
- House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., and GLOBE Associates. (1999). Cultural influences on leadership and organizations: Project GLOBE. In W. H. Mobley, M. J. Gessner, and V. Arnold (Eds.), *Advances in global leadership* (Vol. 1, pp. 71–114). Stamford, CT: JAI Press.
- House, R. J., Hanges, P. W., Javidan, M., Dorfman, P., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage Publications.

- Huang, X., & Van de Vliert, E. (2003). Where intrinsic job satisfaction fails to work: National moderators of intrinsic motivation. *Journal of Organizational Behavior*, 24, 159–179.
- Hui, C. H. (1988). Measurement of individualism-collectivism. *Journal of Research in Personality*, 22, 17–36.
- Hui, M. K., Au, K., & Fock, H. (2004). Empowerment effects across cultures. *Journal of International Business Studies*, 35, 46–60.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton, NJ: Princeton University Press.
- Jackson, T. (2000). Management ethics and corporate policy: A cross-cultural comparison. *The Journal of Management Studies*, 37, 349–369.
- Jackson, T. (2001). Cultural values and management ethics: A 10-nation study. *Human Relations*, 54, 1267–1302.
- Janssens, M., Brett, J. M., & Smith, F. (1995). Confirmatory cross-cultural research: Testing the viability of a corporation-wide safety policy. *Academy of Management Journal*, 38, 364–382.
- Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies*, 37, 285–320.
- Kirkman, B. L., & Shapiro, D. L. (2001a). The impact of cultural values on job satisfaction and organizational commitment in self-managing work teams: The mediating role of employee resistance. *Academy of Management Journal*, 44, 557–569.
- Kirkman, B. L., & Shapiro, D. L. (2001b). The impact of team members' cultural values on productivity, cooperation, and empowerment in self-managing working teams. *Journal of Cross-Cultural Psychology*, 32, 597–617.
- Klein, K. J., & Kozlowski, S. W. J. (2000). From micro to meso: Critical steps in conceptualizing and conducting multilevel research. *Organization Research Methods*, 3, 211–236.
- Kroeber, A. L., & Kluckhohn, C. (1952). Culture: A critical review of concepts and definitions. *Peabody Museum of American Archeology and Ethnology Papers* 47. Cambridge, MA: Harvard University Press.
- Lam, S. S. K., Chen, X. P., & Schaubroeck, J. (2002). Participative decision making and employee performance in different cultures: The moderating effects of allocentrism/idiocentrism and efficacy. *Academy of Management Journal*, 45, 905–914.
- Lam, S. S. K., Hui, C., & Law, K. S. (1999). Organizational citizenship behavior: Comparing perspectives of supervisors and subordinates across four international samples. *Journal of Applied Psychology*, 84, 594–601.
- Lam, S. S. K., Schaubroeck, J., & Aryee, S. (2002). Relationship between organizational justice and employee work outcomes: A cross-national study. *Journal of Organizational Behavior*, 23, 1–18.
- Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, 54, 1155–1187.
- Lewin, A. Y., & Kim, J. (2004). Nation state and culture as influences on organizational change and innovation. In M. S. Poole & A. Van de Ven (Eds.), *Organizational change and innovation* (pp. 324–353). New York: Oxford University Press.
- Liu, L. A., Friedman, R. A., & Chi, S. C. (2005). "Ren qing" versus the "big five": The role of culturally sensitive measures of individual difference in distributive negotiations. *Management and Organization Review*, 1, 225–247.
- Lytle, A. L., Brett, J. M., Barsness, Z. J., Tinsley, C. H., & Janssens, M. (1995). A paradigm for confirmatory cross-cultural research in organizational behavior. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 17, pp. 167–214). Greenwich, CT: JAI Press.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Maznevski, M. L., DiStefano, J. J., Gomez, C. B., Noorderhaven, N. G., & Wu, P. (1997, November). *The cultural orientations framework and international management research*. Paper presented at the Academy of International Business annual meeting, Guadalajara, Mexico.
- Merritt, A. C., & Helmreich, R. L. (1996). Human factors on the flight deck: The influence of national culture. *Journal of Cross-Cultural Psychology*, 27, 5–24.
- Morris, M. W., Williams, K. Y., Leung, K., Larrick, R., Mendoza, M. T., Bhatnagar, D., et al. (1998). Conflict management style: Accounting for cross-national differences. *Journal of International Business Studies*, 29, 729–747.

- Mueller, C. W., Iverson, R. D., & Jo, D.-G. (1999). Distributive justice evaluations in two cultural contexts: A comparison of U.S. and South Korean teachers. *Human Relations*, 52, 869–893.
- Murphy-Berman, V., & Berman, J. J. (2002). Cross-cultural differences in perceptions of distributive justice: A comparison of Hong Kong and Indonesia. *Journal of Cross-Cultural Psychology*, 33, 157–170.
- Naylor, L. L. (1996). *Culture and change: An introduction*. Portsmouth, NH: Greenwood.
- Oltman, P. K., Raskin, E., & Witkin, H. A. (1971). *Group embedded figures test*. Palo Alto, CA: Consulting Psychologists Press.
- Parboteeah, K. P., & Cullen, J. B. (2003). Social institutions and work centrality: Explorations beyond national culture. *Organization Science*, 14, 137–148.
- Parboteeah, K. P., Cullen, J. B., Victor, B., & Sakano, T. (2005). National culture and ethical climates: A comparison of U.S. and Japanese accounting firms. *Management International Review*, 45, 459–481.
- Pelto, P. (1968). The difference between “tight” and “loose” societies. *Transaction*, 5, 37–40.
- Perlof, S. I. (1973). Social values questionnaire. In J. P. Robinson & P. R. Shaver (Eds.), *Measures of social psychological attitudes* (pp. 576–585). Ann Arbor, MI: Survey Research Center, Institute for Social Research (originally written in 1967).
- Peterson, M. F., & Smith, P. B. (1997). Does national culture of ambient temperature explain cross-national differences in role stress? No sweat! *Academy of Management Journal*, 40, 930–946.
- Peterson, M. F., Smith, P. B., Akande, A., Ayestaran, S., Bochner, S., Callan, V., et al. (1995). Role conflict, ambiguity, and overload: A 21-nation study. *Academy of Management Journal*, 38, 429–452.
- Pillai, R., Scandura, T. A., & Williams, E. A. (1999). Leadership and organizational justice: Similarities and differences across cultures. *Journal of International Business Studies*, 30, 763–779.
- Ralston, D. A., Pounder, J., Lo, C. W. H., Wong, Y. Y., Egri, C., & Stauffer, J. (2006). Stability and change in managerial work values: A longitudinal study of Hong Kong, China, and the United States. *Management and Organization Review*, 2, 67–94.
- Ralston, D. A., Vollmer, G. R., Srinivasan, N., Nicholson, J. D., Tang, M., & Wan, P. (2001). Strategies of upward influence: A study of six cultures from Europe, Asia, and America. *Journal of Cross-Cultural Psychology*, 32, 728–735.
- Riordan, C. M., & Vandenberg, R. J. (1994). A central question in cross-cultural research: Do employee of different cultures interpret work-related measures in an equivalent manner? *Journal of Management*, 20, 643–671.
- Robert, C., Probst, T. M., Martocchio, J. J., Drasgow, F., & Lawler, J. J. (2000). Empowerment and continuous improvement in the United States, Mexico, Poland, and India: Predicting fit on the basis of the dimensions of power distance and individualism. *Journal of Applied Psychology*, 85, 643–658.
- Ronen, S., & Shenkar, O. (1987). Cluster countries on attitudinal dimensions: A review and synthesis. *Academy of Management Review*, 10, 435–545.
- Sagie, A., Elizur, D., & Yamauchi, H. (1996). The structure and strength of achievement motivation: A cross-cultural comparison. *Journal of Organizational Behavior*, 17, 431–444.
- Schaffer, B. S., & Riordan, C. M. (2003). A review of cross-cultural methodologies for organizational research: A best-practices approach. *Organizational Research Methods*, 6, 169–215.
- Schaubroeck, J., Xie, J. L., & Lam, S. S. K. (2000). Collective efficacy versus self-efficacy in coping responses to stressors and control: A cross-cultural study. *Journal of Applied Psychology*, 85, 512–525.
- Schwartz, S. H. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, 58, 878–891.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 25, pp. 1–65). New York: Academic Press.
- Schwartz, S. H. (1994). Beyond individualism/collectivism: New cultural dimensions of values. In U. Kim, H. C. Triandis, & G. Yoon (Eds.), *Individualism and collectivism* (pp. 85–117). London: Sage Publications.
- Shapiro, D. L., Von Glinow, M. A., & Xiao, Z. (2007). Toward polycontextually sensitive research methods. *Management and Organization Review*, 3, 129–152.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580–591.
- Singelis, T. M., Triandis, H. C., Bhawuk, D. S., & Gelfand, M. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, 29, 240–275.
- Smith, K. G., & Hitt, M. A. (2005). *Great minds in management: The process of theory development*. Oxford, UK: Oxford University Press.

- Smith, P. B., Dugan, S., & Trompenaars, E. (1996). National culture and managerial values: A dimensional analysis across 43 nations. *Journal of Cross-Cultural Psychology*, 27, 252–285.
- Smith, P. B., Peterson, M. F., & Schwartz, S. H. (2002). Cultural values, sources of guidance, and their relevance to managerial behavior. *Journal of Cross-Cultural Psychology*, 33, 188–208.
- Spector, P., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., et al. (2001). Do national levels of individualism and internal locus of control relate to well-being: An ecological level international study. *Journal of Organizational Behavior*, 22, 815–832.
- Spector, P., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., et al. (2002). Locus of control and well-being at work: How generalizable are Western findings? *Academy of Management Journal*, 45, 453–466.
- Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D., O'Driscoll, M., Sanchez, J. I., et al. (2004). A cross-national comparative study of work-family stressors, working hours, and well-being: China and Latin America versus the Anglo World. *Personnel Psychology*, 57, 119–142.
- Spreitzer, G. M., Perttula, K. H., & Xin, K. (2005). Traditionality matters: An examination of the effectiveness of transformational leadership in the United States and Taiwan. *Journal of Organizational Behavior*, 26, 205–227.
- Strauss, C., & Quinn, N. (1997). *A cognitive theory of cultural meaning*. Cambridge, UK: Cambridge University Press.
- Tang, T. L.-P., Sutarso, T., Akande, A., Allen, M. W., Alzubaidi, A., S., Ansari, M. A., et al. (2006). The love of money and pay level satisfaction: Measurement and functional equivalence in 29 geopolitical entities around the world. *Management and Organization Review*, 2, 423–452.
- Thomas, D. C., & Au, K. (2002). The effect of cultural differences on behavioral responses to low job satisfaction. *Journal of International Business Studies*, 33, 309–326.
- Thomas, D. C., & Pekerti, A. A. (2003). Effect of culture on situational determinants of exchange behavior in organizations: A comparison of New Zealand and Indonesia. *Journal of Cross-Cultural Psychology*, 34, 269–281.
- Tinsley, C. H. (1998). Models of conflict resolution in Japanese, German, and American cultures. *Journal of Applied Psychology*, 83, 316–323.
- Tinsley, C. H. (2001). How negotiators get to yes: Predicting the constellation of strategies used across cultures to negotiate conflict. *Journal of Applied Psychology*, 86, 583–593.
- Tinsley, C. H., & Brett, J. M. (2001). Managing workplace conflict in the United States and Hong Kong. *Organizational Behavior and Human Decision Processes*, 85, 360–381.
- Tinsley, C. H., & Pillutla, M. M. (1998). Negotiating in the United States and Hong Kong. *Journal of International Business Studies*, 29, 711–728.
- Triandis, H. C. (1989). The self and social behavior in differing cultural context. *Psychological Review*, 96, 506–520.
- Triandis, H. C. (1994). *INDCOL: The individualism and collectivism research scale*. Unpublished data. University of Illinois, Urbana.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Laccu, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self-ingroup relationships. *Journal of Personality and Social Psychology*, 54, 323–338.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Trompenaars, F., & Hampden-Turner, C. (1998). *Riding the waves of cultures: Understanding cultural diversity in global business*. New York: McGraw Hill.
- Tsui, A. S. (2007). From homogenization to pluralism: International management research in the academy and beyond. *Academy of Management Journal*, 50, 1353–64.
- Tsui, A. S., Nifadkar, S. S., & Ou, A. Y. (2007). Cross-national, cross-cultural organizational behavior research: Advances, gaps, and recommendations. *Journal of Management*, 33, 426–478.
- Tsui, A. S., Song, L. J., & Yang, J. Y. (2007). Organizational culture and employee responses in Hong Kong schools: Comparing dimensional and configuration Approaches. In L. Neider & C. Schriesheim (Eds.), *Research in management: International perspectives* (pp. 25–55), Charlotte, NC: Information Age Publishing.
- Tung, R. L. (2008). The cross-cultural research imperative: The need to balance cross-national and intra-national diversity. *Journal of International Business Studies*, 39, 41–46.
- Van de Vliert, E., Shi, K., Sanders, K., Wang, Y., & Huang, X. (2004). Chinese and Dutch interpretations of supervisory feedback. *Journal of Cross-Cultural Psychology*, 35, 417–435.

- Van de Vliert, E., & Smith, P. B. (2004). Leader reliance on subordinates across nations that differ in development and climate. *Leadership Quarterly*, 15, 381–403.
- Van de Vliert, E., & Van Yperen, N. W. (1996). Why cross-national differences in role overload? Don't overlook ambient temperature! *Academy of Management Journal*, 39, 986–1004.
- Vandenberg, R. J., and Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3, 4–69.
- Vigoda, E. (2001). Reactions to organizational politics: A cross-cultural examination in Israel and Britain. *Human Relations*, 54, 1483–1518.
- Volkema, R. J. (2004). Demographic, cultural, and economic predictors of perceived ethicality of negotiation behavior: A nine-country analysis. *Journal of Business Research*, 57, 69–78.
- Von Glinow, M. A., Shapiro, D. L., & Brett, J. M. (2004). Can we talk, and should we? Managing emotional conflict in multicultural teams. *Academy of Management Review*, 29, 578–592.
- Wade-Benzoni, K. A., Okumura, T., Brett, J. M., Moore, D. A., Tendbrunsel, A. E., & Bazerman, M. H. (2002). Cognitions and behavior in asymmetric social dilemmas: A comparison of two cultures. *Journal of Applied Psychology*, 87, 87–95.
- Wagner, J. A. (1995). Studies of individualism-collectivism: Effects on cooperation in groups. *Academy of Management Journal*, 38, 152–172.
- Wasti, S. A., Bergman, M. E., Glomb, T. M., & Drasgow, F. (2000). Test of the cross-cultural generalizability of a model of sexual harassment. *Journal of Applied Psychology*, 85, 766–778.
- Werner, S. (2002). Recent developments in international management research: A review of 20 top management journals. *Journal of Management*, 28, 277–305.
- Whetten, D. A. (2009). Cross-context theorizing. *Management and Organization Review*, 5(1).
- Yang, N., Chen, C. C., Choi, J., & Zou, Y. (2000). Sources of work-family conflict: A sino-U.S. comparison of the effects of work and family demands. *Academy of Management Journal*, 43, 113–123.
- Zhou, J., & Martocchio, J. J. (2001). Chinese and American managers' compensation award decisions: A comparative policy-capturing study. *Personnel Psychology*, 54, 115–145.

Section III

*Ecological and Economic
Foundations of Culture*

10 Ecological Determinants of Cultural Variation

Harry C. Triandis

About 2500 years ago Herodotus (1954, 1996) visited about 30 cultures around Greece. He traveled as far south as the first cataract of the Nile, as far north as the Black Sea Scythians, as far east as Babylon, and as far west as Cyrene in Libya (pp. x–xi). On the basis of his observations, Herodotus (460–359 SC) realized that people in all cultures are ethnocentric. They see themselves at the center of the world. Customs that are common in their location are “good,” while norms that are different are “bad.” Cultures that are like their own culture are good, and those that are different are bad.

Thucydides (about 455–395 SC) was a boy when he heard Herodotus recite from his *Histories* at the Olympic Games. He was so moved that he wept (Thucydides, 1934, p. xiv). Later, when he wrote his *History of the Peloponnesian War*, he provided a surprisingly modern account of psychological processes. He argued that there were differences in the fertility of soils in ancient Greece, and humans gravitated toward the fertile soils. To hold these fertile soils, people had to fight, so they developed warlike attributes and institutions. However, those who did not like fighting moved to the Athens area, because it was not fertile. As a result, a highly heterogeneous population, consisting of people from all over Greece, settled in Athens. These people had different ways of perceiving the world, but because they did not like fighting, they debated with considerable frequency in order to reach agreements. Democratic behavior patterns and institutions were generated as a result of these debates (Thucydides, p. 4).

Thus, the ancient Greek historians had two insights: (1) people in all cultures are ethnocentric and (2) differences in ecology lead to differences in culture, social institutions, and personality, and thus to different behaviors. These views emerged again in psychological anthropology (Herskovits, 1955; Whiting, 1993) and in modern psychology (Berry, 1976, 2003; Cohen, 2001; Nisbett, 2003; Triandis, 1972, pp. 22–23; 1990).

Ethnocentrism is a universal human attribute (Herskovits, 1955; Triandis, 1990). It is inevitable because most people start life by knowing only their own culture and see themselves at the center of the world. Thus, the ancient Assyrians wrote on the tablets, now in the Pergamon Museum in Berlin, that they were in the center of the world and that their king Sargon II was “king of the universe.” The ancient Greeks thought that the center of the earth was located in Delphi, and they even specified the exact spot, which they called the *omphalos*—the belly-button of the world. Every place to the east of Delphi was called East, and every place to the west of Delphi was called West. The Romans adopted this terminology, which then entered into the European languages, so that even today we talk about the “Middle East” and the “Far East” as well as the “West.” The Chinese called their country “the central kingdom.”

Herskovits (1955, p. 356) noted, “The ethnocentrism of non-literate peoples...is manifest in many tribal names whose meaning in their respective languages signifies ‘human being.’” Only people who came in touch with many cultures, as was the case with Herodotus, saw that ethnocentrism is due to ignorance. Vico (1948, 1970) established an “axiom” that stated, “It is another property of the human mind, that whenever men can form an idea of distant and unknown things, they judge them

by what is familiar and at hand" (p. 18). This, Vico pointed out, is an inexhaustible source of errors when judging other cultures.

A consequence of ethnocentrism is the perception that what goes on in "our culture" is "natural," "normal," and "correct," while what goes on in other cultures is "unnatural," "immoral," and "incorrect" (Brewer & Campbell, 1976). In-group customs are perceived as universally valid. In-group norms, role definitions, and values are "obviously correct."

Thus we see here a dimension of cultural variation. The in-group–out-group distinction in some cultures is very sharp; in other cultures it is not nearly as strong. Generally, in collectivist cultures the behavior toward members of the in-group is very positive, even self-sacrificing, while behavior toward members of the out-group is ambivalent or hostile. In individualist cultures this difference between behavior toward the in-group and out-group is not nearly as sharp (Triandis, 1972).

This chapter will focus mostly on three dimensions of cultural variation: (1) simplicity-complexity, contrasting hunters and gatherers with information societies, (2) tightness-looseness, contrasting cultures that have many rules and norms and impose them tightly, with cultures that have a few norms and tolerate deviations from normative behavior, and (3) collectivism-individualism.

Collectivism can be measured by the tendency of individuals to see themselves as interrelated with others, to give priority to the goals of others, to behave mostly according to the norms of the in-group (Abrams, Ando, & Hinkle, 1998), to be more likely to conceive of social relationships as communal (Mills & Clark, 1982), and to stay in the group even if dissatisfied with it. Job commitment is often high in collectivist cultures so that even individuals who dislike their jobs tend to stay in them (Wasti, 2002). Collectivist cultures have languages that do not require the use of "I" and "you" (Kashima & Kashima, 1998).

Individualism can be measured by observing that individuals define themselves as independent and autonomous from groups, give priority to their personal goals, behave according to their attitudes (e.g., do what is fun) much more than according to the norms of their group, and leave the group if they do not get along with it (Triandis, 1995). Preliterate, simpler cultures (e.g. hunters and gatherers) are looser and more individualist than somewhat more complex cultures (e.g., farmers) who tend to be collectivist (Berry, 1976).

In addition, the chapter will refer to cultures that are vertical or horizontal. Vertical cultures are those that have much hierarchy. In vertical cultures the orders of authorities are usually obeyed. In horizontal cultures there may be a discussion about the validity of the orders.

In sum, the ecology-culture-behavior insight of the ancient historians is the major focus of the present chapter. They argued that ecology shapes culture, which shapes personality, which influences behavior. While the major focus of the chapter is the ecology-culture link, I will also review some studies that link culture and social behavior.

DEFINITION OF CULTURE

Culture has been defined in hundreds of ways (Kroeber & Kluckhohn, 1952), but for our purposes suffice it to say that culture is to society what memory is to individuals (Kluckhohn, 1954). It includes what has helped in the adjustment of the group into a certain ecology. When a norm helps adjustment, the behavior is likely to become functionally autonomous (Allport, 1937), that is, the behavior may continue even after the conditions that first made it desirable no longer exist. In short, it reflects what has worked at some point in the history of a social group, so that it was worth transmitting to the next generation.

Culture is also conceived as the human-made part of the environment (Herskovitz, 1955). The human-made part of the environment consists of physical elements (e.g., tools, bridges, educational systems, rituals, religious institutions) as well as subjective elements (e.g., beliefs, attitudes, norms, values). Triandis (1972) developed a theory and psychological methods to study "subjective culture." In short, culture is quite heterogeneous and can include many dimensions. In this chapter three

dimensions will be emphasized: simple versus complex cultures, tight versus loose cultures and collectivist versus individualist cultures.

EVOLUTION OF CULTURES

Cultures evolved much the same way as did living organisms. Sperber (1996) used the analogy of an epidemic. A useful idea (e.g., how to make a tool) is adopted by more and more people and becomes an element of culture. Barkow, Cosmides, and Tooby (1992) distinguished three kinds of culture: metaculture, evoked, and epidemiological. They argue that “psychology underlies culture and society, and biological evolution underlies psychology” (p. 635). The biology that has been common to all humans as a species distinguishable from other species results in a “metaculture” that corresponds to panhuman mental contents and organization. Behavior that is different in different ecologies results in “evoked culture” (e.g., hot climate leads to light clothing), which reflects domain-specific mechanisms that are triggered by local circumstances, and leads to within-group similarities and between-group differences. What Sperber described, Barkow, Cosmides and Tooby called “epidemiological culture.”

Differentiation is important in culture change. A tool that works well may be replaced by a tool that works slightly better, but frequently the culture retains both tools. Random variation and selective retention result in different species of tools, just as they also result in different dimensions of cultural variation. Campbell (1965) argued that random variation provided the bases of cultural evolution. It is followed by selective retention and propagation of the positively selected variants. The more frequently members of the culture behave in ways that can be described by a dimension of cultural variation, the greater is the probability that some variations in behavior will appear that work better than previous behaviors, and then a new dimension of cultural variation is likely to appear. In short, some of these variations are retained and propagated, resulting in new dimensions of culture that are derivatives of the previous dimension of culture; each culture, through differentiation, can become a new culture.

Each dimension of cultural variation can be conceived as an entity that is very broad or very narrow. Broad dimensions are “cultural syndromes” (Triandis, 1996), that is, shared patterns of attitudes, beliefs, categorizations, self-definitions, norms, role definitions, values, standard operating procedures, unstated assumptions, and more, organized around a theme. Cultural syndromes require communication and sharing of perspectives. Thus, they can be identified among those who speak a language dialect during a specific historic period and in a definable geographic region. Examples of cultural syndromes are cultural simplicity-complexity (where the theme is complexity), tightness (where the theme is tight imposition of norms), collectivism (where the theme is doing what is expected by the in-group) and individualism (where the theme is the autonomy of individuals from groups). Examples of narrow dimensions are a special pattern of selecting information from the environment (e.g., paying attention to whether people have long or short ears, as occurred in Easter Island), or an emphasis on achievement or on suppression of negative emotions in interpersonal relationships.

Kluckhohn (1954) did the most extensive review of the literature on dimensions of cultural variation, which he called *value orientations*. Kluckhohn & Strodtbeck (1961) operationalized five basic value orientations. Many of the empirical findings of the past 40 years specify more precisely what these orientations imply. For example, the Hofstede (1980) individualism-collectivism dimension was Kluckhohn's individualist versus collateral value orientation; power distance reflected the lineal social relationships of the Kluckhohn typology.

Over the past twenty thousand years, as cultures evolved, their complexity increased (Chick, 1997). Hunters and food gatherers later engaged in slash and burn agriculture. Nomads moved their cattle from one pasture to another, as the pastures became exhausted. This lifestyle does not provide a steady source of food, so people learned to domesticate wild plants and became farmers. Later they

started producing artifacts that they sold in local markets, then they mass-produced more complicated objects that sold in international markets, then information became the main source of income, and so on. Of course, many contemporary nations, such as Brazil, have now some members who are at all of those stages of cultural evolution. Nations consist of thousands of cultures and subcultures.

Cultural diffusion is an extremely important factor in cultural evolution. Cultures that are in communication permit one culture to observe an element of culture in another culture, and when that element has desirable features, it is likely to be adopted, and then Sperber's conception of culture formation as epidemic takes place.

Ethnocentrism is maximal when the culture is simple. As it becomes more complex, it is likely to come in contact with many other cultures, and gradually its members realize that all cultures have both good and bad attributes. When they realize that their own culture has undesirable attributes, they become minimally ethnocentric.

PREVIOUS WORK ON DIMENSIONS OF CULTURAL VARIATION

There is a rich literature on dimensions of cultural variation. The literature includes discussions of cultural complexity (Carneiro, 1970; Chick, 1997), tightness (Pelto, 1968; Triandis, 1994), structural complexity and structural tightness (Boldt & Roberts, 1979), differentiation and integration (Lomax & Berkowitz, 1972), need for achievement (McClelland, 1961), various dimensions of values (Schwartz, 1992) and value orientation (Kluckhohn, 1954; Kluckhohn & Strodtbeck, 1961), social axioms (Leung & Bond, 2003; Leung et al., 2002), community sharing, authority ranking, equality matching, or market pricing (Fiske, 1990), linear versus holistic reasoning (Fiske, Kitayama, Markus & Nisbett, 1998; Nisbett, Peng, Choi, & Norenzayan, 2001; Nisbett, 2003), guilt and shame (Creighton, 1990), Apollonian versus Dionysian cultures (Benedict, 1934), and other contrasts.

Georgas & Berry (1995) discovered clusters of countries reflecting different ecology, education, mass communication, population, and religion. The well-known work of Inglehart (1997) and Schwartz (1992) has also produced dimensions of cultural variation. Hofstede (1980, 1991, 2001) provided five dimensions of cultural variation and linked them to a broad set of ecological, socio-cultural, and other factors.

In addition to the universal (etic) dimensions of cultural variation mentioned above, there are probably innumerable culture-specific (emic) dimensions. For example, Cheung et al. (2001) identified an emic Chinese dimension that they called Ren Qing. It refers to the personality of a particular Chinese hero. A person or members of a culture may or may not behave the way such a personality implies a lot of the time; thus, this is an emic dimension of cultural variation.

It is likely that when members of a culture repeatedly behave in certain ways, they will discover that some variations in behavior are more desirable than their previous behaviors. As this happens with some frequency, the members of the culture will develop a unique way of responding to the environment, and then that will become an emic dimension of cultural variation.

THE ECOLOGY-TO-CULTURE LINK

What aspects of the ecology are most likely to be implicated in this link? Ecologies differ in many ways (Berry, 1979; Diamond, 1999). Diamond (p. 58), mentioned climate, geological type, marine resources, area, terrain fragmentation, and geographical isolation. He provided a detailed examination of the way such factors influence the size of the population, social structure, culture, and history. It is not possible to consider each of these factors separately here, so I selected some factors that may be especially relevant.

SOME ASPECTS OF ECOLOGY

1. Resource Availability or Abundance

Do people make a living easily or do they have to struggle to find food? The more resources that are available (e.g., foods available, oil-rich versus -barren), the easier it is to make a living. This increases the probability that members of the culture will be optimistic, trust each other, and so on. Low trust may be associated with the perception of being surrounded by enemies (Adams, 2005). In Africa, members of some cultures hold the view that they have many enemies (Adams, 2005), and almost anything that is undesirable happens because of witchcraft perpetuated by these enemies. Distrust of others is prevalent. The Adams data also show a rural-urban difference. In both Ghana and the U.S., distrust of others is higher in rural than in urban samples. For example, the percent of the sample who think that “people are plotting their downfall” is higher in rural Ghana (90 percent) and lower in urban Ghana (60 percent), higher in rural Pennsylvania (25 percent) and lower in San Francisco (15 percent).

Triandis (1973) found evidence that in cultures that are neither too easy (e.g., garden cultures of the South Pacific) nor too difficult (e.g., barren deserts), people have the most positive attitude toward work. Extreme shortages of resources, as reported by Turnbull (1972) in his work with the Ik, may result in parents abandoning their children, triage of children, and extreme social disorganization. Among unemployed individuals, resources may become available only when they happen to be successful in crime, and they develop distrust of both people and events (Triandis, 1976). Such individuals have been found to have a culture characterized by “ecosystem distrust.”

When resources are limited, people are likely to band together to increase the probability that they will have food. For example, in hunting societies a successful hunter might be able to get food every three days or so. Since there is no refrigeration, the food must be consumed readily. By distributing the food within the tribe, all members of the in-group have something to eat. Since there are many hunters, the probability that most members of the tribe will have something to eat is rather high. Such patterns of behavior are likely to stress the creation of in-groups within which there is much cooperation. But if the in-group wants the food to be distributed among a few people, then out-groups are created. This is a fairly common pattern in collectivist societies where people behave very differently toward members of the in-group and the out-group (Triandis, 1972). When there are shortages, there is emphasis on survival. When there is affluence, there is emphasis on well-being. This is a major dimension of cultural variation discussed by Inglehart (1997).

2. Resource Mobility

Cultures where wealth is easily moveable (e.g., cattle can be moved more easily than trees) develop a “culture of honor,” in which people are socialized to be fierce and to react aggressively to insults, so that strangers will be discouraged from stealing their moveable goods. Nisbett and Cohen (1996) showed that a culture of honor is more common in the southern than in the northern parts of the U.S. The South was populated primarily by pastoralists from the border between Scotland and England; the North was populated by migrants from the agricultural parts of the British Islands (Fischer, 1991). Cohen, Nisbett, Bowdle, and Schwarz (1996) showed that, compared to students from the North, students from the South of the U.S. were more easily provoked and became more aggressive when they were verbally insulted.

3. Cultural Isolation

The population may have been isolated in one location for a long time, such as between mountains or on an island, thus they have had few influences from the outside, which may result in similar beliefs, attitudes, norms, and values (e.g., Japan is more homogeneous than the U.S.). Homogeneous cultures have relatively similar norms, so they can impose these norms tightly. In sum, the homogeneity of cultures results in *tightness* (cultures where there are many norms that are strictly observed), and

people are very likely to be punished when they deviate from these norms (see Triandis, 1994, pp. 159–164 for details).

An example of a tight culture is the Taliban. When the Taliban was in charge in Afghanistan, people were severely punished when they broke trivial norms, such as wearing “incorrect” attire, listening to music, or flying kites. In that culture a woman walking in the street without a male relative was punished with 100 lashes. Executions were so common that one of the ministers of the Taliban considered executions an essential business of the state (according to an interview with the BBC). Another example is North Korea, where people march in unison according to the instructions of “the Dear Leader.” Religiosity is correlated with tightness. Monasteries have tighter cultures than cities.

Heterogeneity can lead to *looseness*. In loose cultures there are few norms, and people tolerate deviation from these norms. Since most people do not agree on the applicable norms, it is not practical to punish people for ignoring a norm. In short, norms are enforced with laxity. Rural Thailand is a loose culture. It is heterogeneous because the cultures of both India and China have influenced its culture. When norms are not observed, people simply smile and say that it does not matter. For example, if a person is expected to come to work and does not come, most people tolerate this behavior and say, “It does not matter.” Looseness also results in a perspective that Inglehart (1997) calls “postmodern.” It is characterized by general tolerance and acceptance of divorce, homosexuality, abortion, and so on. A secular perspective is correlated with looseness. The U.S. was tighter in the 1950s than in the 2000s.

Strictly patrilinear societies are more homogeneous than bilateral societies, where children are socialized according to the norms of *both* the father’s and the mother’s families. Thus, in societies where one parent has much more influence than the other, we expect more tightness; and in cultures where the two parents have equal influence in child-rearing, we expect pressures toward looseness.

4. Activity Interdependence

To make a living in some environments, people have to cooperate more than in others. For example, activity interdependence is required for major public works, such as irrigation canals or the building of major pyramids. Activity interdependence is likely to result in collectivism.

5. Dangerous Activities

To make a living in some ecologies one must engage in dangerous activities such as fishing in the high sea, while in other ecologies one can simply get food from tropical gardens without much personal risk. When people choose occupations that include dangerous activities in order to get food, the society rewards those who take risks by giving them power and status (Nisbett, 1990). For example, during the Middle Ages the knights of Europe had more status and power than other citizens. This increases the probability of hierarchy developing in the society. Dangerous activities done voluntarily are likely to result in status differentiations, such as between men and women or between soldiers and civilians. Thus high power-distance or vertical societies must have had, at some time in their past, people in dangerous occupations, such as warriors. High power-distance cultures (Hofstede, 1980) are those where people see a large difference in status between people at the top and bottom of a society.

In addition, when resources are available those who have access to the resources have more power and status than those who do not have access to the resources do. Literacy is a resource, and those who are literate are often given more status than those who are illiterate. Since the religious authorities in most societies are more literate than the general population, they have more status than the average person.

6. Population Density

The difference between the Netherlands (390 persons per square kilometer) and Montana (2.1 persons per square kilometer) has several implications. For example, in dense environments the probability that people will be observed if they break an important norm is high. In sparsely populated

environments the breaking of a norm may not be detected. Thus, density increases the probability that the society will be tight. However, population density is probably curvilinearly related to tightness. As density increases there is more tightness because people in dense ecologies are more likely to note and punish those who do not obey the in-group's rules. However, extreme density may make conformity to others unbearably intrusive, and thus might result in less tightness. There is a need for research of this relationship, though establishing curvilinear trends is sometimes difficult. Other things being equal, population density should be related to collectivism, because tightness is related to collectivism (Carpenter, 2000). In fact, states like Montana are more individualist than states that are higher in density, such as the southeastern U.S. states (Vandello & Cohen, 1999).

Diamond (1999, p. 87) links the availability of suitable wild species that can be domesticated to increases in food supplies, and thus to greater population density. Large population density increases the probability of much hierarchy (Diamond, 1999), superior technology, and thus the ability to prevail in war. But the domestication of animals and high density also result in epidemic diseases. Those who survive these diseases are able to transmit diseases to populations that have not developed immunities, and thus again they may prevail in war (e.g., the Europeans decimated Native Americans).

7. Simple-Complex Societies

Simple societies (e.g., hunters and gatherers) tend to have few resources and no way of accumulating resources (no banks, refrigerators, storage bins), so they tend to be egalitarian (Diamond, 1999). Agricultural societies have considerable hierarchy. Inequality becomes even greater as societies become more complex. But cultural complexity may result in a number of distinct hierarchies. An individual may be high in one hierarchy (president of a neighborhood) and low in another (janitor in a factory). The net result is that the most power distance is found in moderately complex cultures with relatively low levels of economic development, where there is status congruity across the various hierarchical structures. Additional factors, such as high literacy in some groups and illiteracy in other groups, many resources owned by one group and few resources owned by other groups, and so on, will also result in high power distance. High levels of economic development are associated with additional factors, such as democracy, populism, social security systems, and the like.

8. Migrations

Migrations that separate individuals from in-groups (some are forced by wars, some by differences in the standard of living, and some by environmental deterioration) result in individualism. Migrations that remove individuals from their in-groups should be related also to looseness, because one moves away from the in-group and no longer has to follow in-group norms (Gerganov, Dilova, Petkova, & Paspalanova, 1996).

9. Climate

McClelland (1961) found that optimal achievement occurs in cultures where the mean temperature of the year is about 50 degrees fahrenheit, and the climate is not too dry or wet. In short, the optimal climate (cold-hot, humid-dry) for achievement is in Chicago! Cold climates are related to individualism (Hofstede, 1980, 2001), because in cold climates people stay indoors, and thus do not interact with others as much as in warm climates, where there is much outdoor life. Most collectivist cultures are in warm climates. The probability of violent behaviors is higher in hot than in cold climates (Van de Vliert, Schwartz, Huismans, Hofstede, & Daan (1999).

A large study by Inglehart & Baker (2000) examined data from several countries and found two dimensions distinguishing countries. One dimension contrasted traditional authority with secular-rational authority. The traditional side emphasized the importance of God. The secular side emphasized permissive attitudes toward sexual and other issues. This contrast, among cultures, is related positively to individualism (more secular) and negatively to power distance (hierarchical cultures give more importance to God). The other dimension contrasted survival (emphasis on money, hard

work) with self-expression (leisure, friends, concern for the environment). The Northern European countries were high on both the secular and the self-expression dimensions. The African and Muslim countries were on the traditional and the survival sides of the two dimensions. The other countries were in-between these two sets of countries.

Van de Vliert (2007) used the Inglehart and Baker dimension of survival versus self-expression. He found that in wealthy countries with harsh climates (cold or hot), self-expression was higher than in countries with temperate climates; but in poor countries with harsh climates, self-expression was lower than in poor countries with temperate climates. In short, there was an interaction of climate and wealth. Low-income, cold-climate countries (Baltic countries, Russia) emphasized self-expression, but low-income, hot-climate countries (Africa south of the Sahara) emphasized survival much more than other countries. If the country has money, harsh climate can be taken care of. Singapore, for instance, is fully air-conditioned, so the climate is not a problem. Wealthy countries in cold climates also can take care of the problem (saunas, excellent heating). But poor countries respond very differently to the harshness of the climate.

10. The Unpredictability of the Environment

The frequency of earthquakes, floods, hurricanes, and other natural disasters has consequences for the cultures that develop. When there is unpredictability, people do not develop planning. What is the point in planning when one is not sure that the plans can be carried out? When resources are limited, this is especially likely to happen. In some societies planning is extensive and very common; in other societies people accomplish their task by acting spontaneously, with short but intensive motivation to complete the job. For instance, in some societies, when a school graduation is expected, the chairs and the amplification equipment are placed in the halls where the ceremonies will take place weeks in advance. In other societies, they are placed in such halls only the day of the event. However, when resources are available, a society may actually engage in much planning to control the effects of natural disasters. For example, in Japan there is much planning to minimize the damage caused by earthquakes. It is reflected in the architecture, the frequency of drills, and the availability of specially designed public facilities.

11. Terrain Fragmentation

The separation of a group from other groups because of the presence of large mountains, rivers, or other obstacles to cultural contact—terrain fragmentation—increases the probability that separate and distinct cultures will develop.

CULTURAL DOMAINS

Georgas & Berry (1995) made a valiant effort to explore ecology empirically. They started with 500 indexes from published yearbooks, such as the *United Nations Statistical Yearbook*. They used data from 121 nations, and clustered these nations in domains they called Ecology (which is basically climate), Education (e.g., adult illiteracy), Economics (e.g., Gross National Product per capita), Mass Communication (e.g., number of telephones), Population and Religion. Using the Euclidian distances among the nations, they came up with several clusters within each domain. Are these clusters related to the three basic dimensions of cultural variation discussed here?

The Ecology domain had 5 clusters, such as hot and wet, hot and dry, cold and wet and so on. I estimated cultural complexity by using the country's Gross National Product per capita and the size of settlements (Chick, 1997). My inspection of the clusters suggested that cluster 1 (e.g., Liberia) was culturally simple and cluster 3 (which included most of the European countries) was the most complex. But unfortunately this technique ends with errors. For instance, why is Argentina in the European cluster?

As far as I could tell from inspection of the data of the Education domain, which also had 5 clusters, this domain was also related to cultural complexity, with cluster 1 (e.g., Afghanistan) low,

cluster 5 (e.g., Egypt) more complex, cluster 2 (e.g., Brazil) still more complex, and cluster 4 (mostly Western countries) the most complex. Again there were many anomalies, such as Thailand ending in the most complex cluster.

The Economic domain was most clearly related to cultural complexity, with cluster 1 (e.g., Burundi) low in complexity, cluster 5 (e.g., India) higher, cluster 2 (e.g., Peru) even more complex, cluster 4 (e.g., Argentina) quite complex, and cluster 3 (Western countries and Japan) the most complex.

The Communication domain was also very clearly linked to complexity, with cluster 4 including most of the countries, cluster 3 (many European countries), cluster 2 (Finland) very complex, and cluster 1 with only one country, the U.S.

The Population cluster includes longevity, so it too was related to complexity, with cluster 1 (Chad) low, cluster 2 (Bolivia) higher, cluster 4 (Algeria) rather high, and cluster 3 (most European countries) the most complex.

The Religion domain was presented categorically and was not clearly related to any of the basic dimensions of cultural variation discussed in this chapter. It included many anomalies. For example, the Buddhist cluster included both Japan and Thailand, the prototypic high- and low-tightness countries, as well as Japan and Myanmar, which are clearly high and very low, respectively, in complexity.

In sum, while it would be highly desirable to develop a typology of ecological settings empirically, it is very difficult to do so because the data are generated by demographers and economists who have their own purposes and appear to reflect cultural complexity rather than dimensions such as tightness or collectivism-individualism.

SYSTEMATIC EXPLORATION OF THE ECOLOGY-CULTURE LINK

The work reviewed above suggests that there are important links between ecology and culture. However, it is useful to be more systematic and present these links in the form of testable hypotheses.

The central point of the present argument is that the ecology consists of myriads of relevant elements, and any one of these elements is likely to have probabilistic relationships with some elements of culture. For example, if there are fish in an ecology, the probability is high that members of the culture will go fishing, eat fish, and have beliefs about when, where, how, and with whom to eat fish. Institutions such as fish-packing plants are likely to develop. Social life is likely to be influenced by fish (e.g., people may have a ceremony where they sign while they eat fish). The educational system is likely to have some discussion of fish in the curriculum. There may be a political party that advocates restrictions in fishing so that the stock will not be depleted, while another political party rejects such restrictions. The culture is likely to have a god that helps with fishing and increases the abundance of fish, and a devil that spoils the chances of successful fishing. The economy will be linked to fishing, and artistic productions may feature fish. In short, every element of culture may be influenced by the presence of fish in that ecology.

HYPOTHESES CONCERNING THE ECOLOGY-CULTURE LINK

While there are numerous dimensions of cultural variation, in this section I will focus only on those that might be most important. They are cultural simplicity-complexity, tightness-looseness, and individualism-collectivism. The hypotheses will state explicitly the relationships that have already been mentioned in an unsystematic way.

The individualism-collectivism dimensions has been given different names in the literature, for example, independent-interdependent cultures, individualistic-sociocentric, *Gesellschaft-Gemeinschaft*, and so on. In fact, this dimension seems to have organized many of the reviews of the literature and is reflected in most of the empirical work reported in widely used scientific journals

during the 1990–2007 period (Triandis, Dunnette, & Hough, 1994; Gelfand, Erez, & Aycan, 2007; Schimmack, Oishi, & Diener 2005; Kitayama & Cohen, 2007).

There are many kinds of collectivism. For example, while both East Asia and Latin America are generally collectivist, they are quite different in many ways. Thus, there is a need to discover additional dimensions of cultural variation. The research so far has only looked intensively at the three dimensions just mentioned. The most recent work on collectivism-individualism is summarized in Kitayama, Duffy, and Uchida (2007), Oyserman and Lee (2007), Brewer and Yakin (2007) and Mesquita and Leu (2007), though many of the other chapters in Kitayama and Cohen (2007) also have some material related to this dimension.

In any case, I will focus here on the ecological antecedents of these three dimensions.

ECOLOGICAL ANTECEDENTS OF CULTURAL DIMENSIONS

Hypothesis 1. The more complex the activities required to make a living, the more complex will be the culture.

Prototypical simple cultures are hunters and gatherers; prototypical complex cultures are information societies. Complex activities will involve different kinds of activities, more roles, more points of view and more types of communication patterns. Complex cultures will have a larger number of persons in each settlement (Chick, 1997), more political parties, and more goods of every kind.

Hypothesis 2. The more a culture is isolated from other cultures, the more likely it is to be a tight culture.

We see isolation in the case of well-known tight cultures such as the Taliban of Afghanistan, where mountains made the influence of other cultures difficult, and in the case of Japan (islands), as opposed to well-known loose cultures, such as Thailand, which is at the confluence of Chinese and Indian cultures. Tightness can be measured by counting the number of norms, rules, or laws found and the severity of the punishment when these norms are not observed (Gelfand, Nishii, & Raver, 2006). Number and severity are two independent dimensions, but they tend to be correlated.

One index of tightness is the percent of the population that is right-handed. In tight cultures almost everybody is right handed. In loose cultures as many as 15 percent of the population are left handed (Dawson, 1969).

In tight cultures, such as Singapore, adolescents conform to societal norms and do not engage in risky behaviors, such as experimenting with drugs, alcohol, tobacco, physical violence, or sexual intercourse (Ball & Moselle, 1995).

Hypothesis 3. The more affluent the culture, the higher the probability that it will be individualist (Hofstede, 1980; Kohn, 1969). It is likely that there is reciprocal causation between affluence and individualism.

In collectivist cultures an individual who thinks of starting a business or going abroad to make more money, will be somewhat inhibited by the in-group, which is often quite conservative and risk-aversive. However, if the individual is affluent, moderate risks can be taken without consulting the in-group. The individual can do “his or her own thing,” and that is likely to succeed some of the time. Then the individual becomes even more independent of the group.

Hypothesis 4. The lower the status of a group in a social hierarchy, the more likely it is to adopt a collectivist perspective (Kohn, 1969).

Low status requires sharing of resources and the development of values that emphasize security, reliability, and tradition. These factors are more consistent with collectivism than with individualism (Triandis, 1995).

Hypothesis 5. Rural samples are more likely to adopt a collectivist perspective than urban samples (Freeman, 1997).

Rural environments are usually simpler than urban environments (Chick, 1997), and simple cultures tend to be collectivist. In rural cultures people do not interact with those that are very different

from them, and they do not travel much, thus they are aware of only one set of norms. This increases the probability of both tightness and collectivism.

Hypothesis 6. The more schooling is found in a society, the more cultural complexity there will be; and reciprocally, the more cultural complexity, the more schooling.

Examination of the educational levels of different countries supports this hypothesis. For example, the most education is found in Scandinavian countries, and the least in Angola, Nigeria, and Congo-Brazzaville (*The Economist World in Figures*, 2006).

Hypothesis 7. In all cultures older people will be more collectivist than younger people.

There is evidence that older members of a society are more collectivist than younger members of that society. For example, Noricks et al. (1987) studied a large sample in California and examined the extent to which the individuals used *context* in describing other persons. The use of context (e.g., "she is intelligent in the marketplace," "she is stupid when dealing with her mother-in-law") is more characteristic of collectivists than of individualists. Previous studies (Shweder & Bourne, 1982) had found that a Chicago sample used context 28 percent of the time, while Indians in Orissa used context 50 percent of the time. Thus, the high frequency of use of context can be used as an index of allocentrism. Noricks et al. found that those who were less than 50 years old used context 32 percent of the time, while those who were more than 50 years old used context 43 percent of the time. The effect of age is probably due to the fact that older individuals are more embedded into in-groups, including family, neighborhood, city, and so on.

Trommsdorff, Mayer, and Albert (2004) examined the collectivism of high school students, their parents, and their grandparents. The older samples were higher on collectivism. Realo, Allik, and Vadi (1997) studied a diverse sample of 1031 Estonians. The older Estonian samples were the most collectivist. However, they also had an older sample from a Swedish sorority, and they were low in collectivism. Presumably, the nationality is the first clue, and age is the second clue, indicating probable collectivism.

One explanation for the greater use of context in collectivist cultures is that one can maintain harmonious relationships within the in-group better by using context rather than content. For example, one cannot say "No" without stressing a relationship, but one can show through posture and gesture that a request is difficult to agree with.

Hyun (2001) found that in Korea traditional values were held less strongly by the young, by females, and by educated samples that had much contact with the West and those who were exposed to modern life than by the old, by males, and by the less educated who had little exposure to the West and to modern life.

Hypothesis 8. The more members of a culture experience a salient common fate, the more collectivist they are likely to be (Campbell, 1958).

Common fate emphasizes the salience of the in-group and increases the probability that individuals will see themselves as aspects of the in-group, interdependent with members of the in-group, and therefore more collectivist.

Hypothesis 9. The greater the crises faced by members of a culture or the greater the threats to the in-group, the more are people likely to become collectivists (McKelvey, 1982).

Crises function the same way as common fate, already discussed in hypothesis 8. In addition, both crises and attacks to the in-group tend to increase stress. Stress increases the cognitive simplicity of the members of the in-group (Paulhus & Suedfeld, 1988). Cognitive simplicity is more widespread in simple cultures, which tend to be collectivist, than in complex cultures, which tend to be individualist.

Hypothesis 10. Cultural heterogeneity is likely to increase looseness.

Where multiple normative systems are present, there is likely to be cultural looseness. If there are several norms that are applicable to a situation, members of the culture have to be tolerant when a person follows one of these norms rather than another. Looseness is measured by the presence of few rules and tolerance for not observing the rules (Gelfand et al., 2006).

Hypothesis 11. The more hours of exposure to Hollywood-type media, the more individualism.

Content analyses of Western-made television programs showed a predominance of idiocentric themes (McBride, 1998). Hsu (1983) pointed out that in Western novels, love conquers all; in novels from Eastern cultures, the heroes do their duty at great personal sacrifice.

Hypothesis 12. The more religious the culture, the more likely it is to be collectivist; and reciprocally, the more collectivist the culture, the more likely it is to be high in religiosity (Triandis & Singelis, 1998).

Religion is associated with tradition, and collectivists tend to be more traditional than individualists (Schwartz, 1992). Co-religionists are often seen as an in-group, which tends to increase collectivism.

Hypothesis 13. The more heterogeneous (in beliefs, attitudes, norms, and values) a culture, the more likely it is to be loose (Gelfand et al. 2006).

When there is disagreement on norms within a culture, it is difficult to impose the norms of the culture tightly. Behavior that deviates from norms is often tolerated, and that leads to a loose culture.

Hypothesis 14. The more a culture is located in an open frontier, the more likely it is to be loose and individualist (Kitayama, Ishii, Imada, Takemura, & Ramaswamy, 2006).

An open frontier allows people to live at a distance from other people. Then it is possible for a person to break a norm while the members of the culture are not close enough to notice it. The more people can do their own thing and not be noticed, the looser, as well as the more individualist, is the culture.

Hypothesis 15. The more normative systems are present in a culture (e.g., both the father's and mother's relatives are influential in socialization), the more likely it is that the culture will be loose (Pelto, 1968) and individualist.

Many normative systems imply that there is more than one correct response to a social situation, thus an individual must tolerate behaviors that are not consistent with one's own norms.

Hypothesis 16. The less social change is occurring in a culture, the more it is likely to be collectivist. The more social change is occurring, the more likely it is to be individualist.

People in collectivist cultures see the environment as more or less fixed (stable norms, obligations, duties) and themselves as changeable, ready to "fit in." People in individualist cultures see themselves as more or less stable (stable attitudes, personality, rights) and the environment as changeable (e.g., if they do not like the job, they change jobs) (Chiu, Dweck, Tong, & Fu, 1997; Chiu & Hong, 1999).

Hypothesis 17. The more interdependent the jobs in a culture, the more likely it is that the culture will be collectivist.

Large-scale projects that require the work of many individuals also require cooperation, which emphasizes the existence of in-groups and even can foster one's identity as a member of the team that is getting that project done. The clearer the perception of an in-group, the more likely it is that people will do what the norms of the in-group specify; thus, they will be collectivists.

Hypothesis 18. The more people in a culture work alone (e.g., an artistic colony) to make a living, the more likely the culture is to be individualist.

Working alone allows individuals to do their own thing, to feel that they are unique, and to be independent of groups. These are attributes of individualism.

Hypothesis 19. The more children there are in most nuclear families in the culture, the more likely is the culture to be collectivist.

That is because when there are many children, it is necessary to have more norms and rules that apply to all the children and to enforce these norms; otherwise, there can be chaos. This will create tightness, and tightness is related to collectivism (Carpenter, 2000).

Hypothesis 20. One-child families will have individualist offspring (Falbo, 1992; Petzold, 1988).

In one-child families, the child experiences a unique social environment in which he or she is very important. Thus it is possible for the child to feel unique, and that is an attribute of individualism.

Hypothesis 21. The more equal the power of fathers and mothers, the more the children will be individualists.

Equal power implies that the norms of both the father's and mother's families will be in force, and any discrepancy in these norms will lead to tolerance of different ways of behavior and thus to looseness, and looseness is related to individualism (Carpenter, 2000).

Hypothesis 22. If there is only patriarchy or matriarchy in a culture, it is likely that the culture will be tight and collectivist (Pelto, 1968).

The justification was given in hypothesis 21.

Hypothesis 23. The more educated a sample, the more likely it is that it will be individualist.

In educational settings people get rewarded for individual rather than collective actions (e.g., get individual grades) (Lillard, 1998). In addition, education tends to make people more cognitively complex, and that is consistent with cultural complexity and individualism.

Hypothesis 24. Cultural complexity results in cultures where individuals have access to many in-groups. The more in-groups are available to individuals in a culture, the more likely is that the culture will be individualist. Conversely, individualist cultures generate situations where people have many in-groups.

As cultures become complex, individuals have access to more different social groups, political parties, religious beliefs, educational experiences, aesthetic experiences, and kinds of merchandise. Choice is associated with individualism. People in complex cultures can be members of different in-groups, and thus that also makes them more individualist.

Hypothesis 25. The more advantageous is group action, the more likely are people to develop a collectivist culture.

For example, if getting more money requires joining a union, people will have a collectivist orientation, but if one can get more money with individual bargaining, people will have an individualist orientation.

CULTURE-TO-SOCIAL BEHAVIOR LINKS

Hypothesis 26. The simpler the culture, the more equality there will be (Diamond, 1999).

This is the case because in simple cultures, such as hunters and gatherers, there is no way to accumulate resources. As societies become more complex, some people can hold resources, while others do not have such resources, and then inequality develops. The most inequality occurs in very complex societies, such as the U.S., where some people have a net worth of \$45 billion, while others have one of only a few hundred dollars. Ancient cultures such as Egypt or China had a good deal of complexity and inequality, but the difference between the pharaoh and the common peasant was probably less than the difference between Bill Gates and Latino illegal migrants. Of course, if we ignore the super-rich, the U.S. is not as unequal as many other societies, for example, Brazil.

Hypothesis 27. The more collectivist the culture, the more people pay attention to interpersonal relationships (Hui & Yee, 1999).

Ohbuchi, Fukushima, and Tedeschi (1999) showed that collectivists in conflict situations are primarily concerned with maintaining relationships with others, while individualists are primarily concerned with achieving justice. Thus, collectivists prefer methods of conflict resolution that do not destroy relationships (such as mediation), while individualists are willing to go to court to settle disputes (Leung, 1997).

Hypothesis 28. The more collectivist the culture, the more people are likely to use polychronic time (they talk to several people at the same time).

Since collectivists are concerned with social relationships, they do not want to have people in their circle "left out" of the conversation. They try to satisfy all members of the in-group. Even in situations that are not clearly in-group situations, such as a desk clerk interacting with several clients in Mexico, one can observe the use of polychronic time.

Hypothesis 29. The more collectivist the culture, the more people will use social rather than clock time to end a social event (Levine, 1997).

In collectivist cultures the social situation is most important, and extraneous, mechanical factors, such as whether it was announced that a meeting will end at a particular time, are not seen as appropriate ways to end a social interaction.

Hypothesis 30. The more collectivist the culture, the more people will suppress the expression of negative feelings toward in-group members (Stephan, Stephan, & de Vargas, 1996).

Harmony within the in-group is an important value in collectivist cultures. The expression of negative feelings is likely to disrupt the harmony of the in-group.

Hypothesis 31. The more individualist the culture, the more are people concerned with personal accomplishments.

Personal accomplishments reflect on the person's worth, and people in individualist cultures are especially concerned with their self-worth. Self esteem is very high in individualist cultures (Markus & Kitayama, 1991).

Hypothesis 32. The more individualist the culture, the more likely are its members to use monochronic time.

Speaking to one person at a time is generally most efficient. One can complete one's business with one person and go to the next person. Since getting things done and accomplishing tasks are important values of individualists, it is more likely that individualists will use monochronic time.

Hypothesis 33. The more individualist the culture, the more likely it is to use clock time (Levine, 1997).

The explanation is parallel to that given for hypothesis 29.

Hypothesis 34. The more individualist the culture, the more people express negative emotions within their in-group.

The explanation parallels the explanation of hypothesis 30.

Hypothesis 35. The more individualist the culture, the more people value quantity over quality of work output.

Quantity is more visible and more easily measurable than quality. For example, if one has 100 publications, the dean of the college is more likely to be impressed than be persuaded by one highly acclaimed publication.

Hypothesis 36. The more collectivist the culture, the more are people likely to use holistic thinking (Nisbett, 2003).

Holistic thinking is related to the greater use of context, which is an attribute of collectivists.

Hypothesis 37. The more collectivist the culture, the more likely are people to use circular thinking (e.g., if something is good it will become bad, and later it will become good again).

This tendency, discussed by Nisbett (2003), is consistent with the tendencies of collectivists to use moderation and dialectical thinking (Peng & Nisbett, 1999).

Hypothesis 38. The more collectivist the culture, the more are people likely to use associative communication (communication that uses previous associations) and thinking (e.g., if in the past A was related to B, they may use B expecting the listener to understand A) (Glen & Glen, 1982).

Associative thinking is cognitively simpler than abstractive thinking. For example, if a person was present when another person drowned, it is easier to think that that person caused the drowning than to investigate all the possible causes of the drowning. Since cognitive simplicity is more common in simple cultures, which tend to be collectivist, it is likely that collectivists will use associative thinking.

Hypothesis 39. Collectivists will have a greater tolerance for contradiction than do individualists (Choi & Nisbett, 2000).

Since collectivists think dialectically (Peng & Nisbett, 1999), they are used to holding contradictory beliefs, and so they are more tolerant of contradiction than are individualists.

Hypothesis 40. The more collectivist the culture, the more people are likely to communicate indirectly (paying attention to gestures, body position, tone of voice, and loudness of voice) (Holtgraves, 1997; Triandis, 1994).

Lin (1997) points out that ambiguity in communication can be helpful in a vertical culture, because one is less likely to offend an authority figure. There are more vertical than horizontal

collectivist cultures. Thus, there is a correlation between verticality and collectivism. In vertical collectivist cultures such as China, the clarity of communication may result in sanctions. For instance, one does not dare to point out to an official that he is not correct. The Chinese, Lin (1997) indicates, admire people who are frank, such as Judge Bao (p. 369), but do not emulate them.

Hypothesis 41. The more individualist the culture, the more are people likely to use linear thinking (if something is good, it will become very good) (Nisbett, 2003).

Linear and analytic thinking are more common in individualist than in collectivist cultures. Linear thinking may be more effective when dealing with objects than when dealing with people. Since individualists are especially concerned with getting things done, they may stress linear rather than circular and analytic rather than holistic thinking.

Hypothesis 42. The more individualist the culture, the more likely are its members to stress pragmatic values.

Getting things done and achievement are strong values in individualist cultures. Individualists are more interested in tasks than in social relationships. Thus, individualists are likely to focus on pragmatic values that will help them accomplish their tasks.

Hypothesis 43. The more individualist the culture, the more likely is the use of a direct mode of communication (Holtgraves, 1997; Triandis, 1994).

Direct communication is more efficient than indirect. Because in individualist cultures the members emphasize accomplishments, they are most likely to use direct communication.

Hypothesis 44. The more individualist the culture, the more likely is the use of abstractive communication (e.g., more likely to say "I will take negative steps" than to say "I will hit you") (Glenn & Glenn, 1981; Triandis, 1995).

Abstractive communication is more efficient than enumerating each and every one of the actions that might take place. Because individualists stress efficiency, they are likely to use abstractive communication.

Hypothesis 45. The more individualist the culture, the more motivated are individuals when they have an individual choice (Iyengar & Lepper, 1999).

Individualists are especially motivated when they can decide for themselves what to do. Collectivists often are most motivated when they do what is suggested by in-group authorities.

Hypothesis 46. In collectivist cultures people have a long-time perspective, which considers both ancestors and dependents. In individualist cultures people focus mostly on the here and now (Leung, 1997).

Since collectivists consider the fate of descendants and the consistency of an action to the wishes of ancestors, they have a long-time perspective.

Hypothesis 47. When making personal decisions, people in collectivist cultures will give more weight to the ascribed attributes of individuals (where they were born, to what family do they belong, who knows them well) than will people in individualist cultures. In tight cultures also there will be greater emphasis on ascribed attributes (Gelfand et al., 2006, p. 1232) than on personal attributes.

Ascribed attributes define in-groups more effectively than general, categorical attributes.

Hypothesis 48. When making personal decisions, people in individualist cultures will consider previous achievements, competence, and consistency of performance more than people in collectivist cultures (Triandis & Vassiliou, 1972). In loose cultures also there will be more emphasis on competence and skills (Gelfand et al., 2006) than in tight cultures.

In collectivist cultures the individual's standing in the in-group (such as, is the individual a "good" member of the in-group) is more important than extreme competence, achievement, or consistency of performance. Similarly, in tight cultures doing what the in-group expects is more important than extreme competence or accomplishments.

Hypothesis 49. In simple cultures, power derives from deities, aristocracy, or specific individuals. In complex cultures, power derives from multiple sources, such as the people, elected representatives, especially competent people, physically attractive people, and so on (Vico, 1744).

Simple cultures favor cognitively simple judgments. It is simpler to think of a god or boss as the source of action than to think of the relatively complex processes characteristic of democracy. This is why the leadership of al-Qaeda considers that laws should be made by Allah (Ibrahim, 2007) and no one else, thus it is illegitimate for the people to make laws. On the other hand, in complex cultures there is some resentment when orders come from a single source.

Hypothesis 50. Democratic institutions are most likely to occur in complex cultures.

The more complex the culture, the more its various parts have to be coordinated in some fashion. Such coordination can be done more smoothly if democratic institutions are in place. Cognitively simple thinking rejects democracy. For example, Osama bin Laden wants to establish *shari'ah* law throughout the world. That is cognitively simple. He also rejects democracy, which he believes is totally incompatible with *shari'ah* law (Ibrahim, 2007).

Hypothesis 51. Particularism (decisions based on specific attributes of persons, situations, and conditions) is more likely in simple cultures; universalism (decisions based on universal, general principles) is more likely in complex cultures (Triandis, 1972).

Particularism is cognitively simple and concrete. Universalism is cognitively complex and abstract.

Hypothesis 52. In vertical cultures individuals are motivated to stand out. In horizontal cultures individuals avoid standing out (they try to blend in) (Daun, 1992).

Traditional India is vertical, while Australia and Sweden are horizontal. In India individuals seek status, and they want to stand out, to be “on top of an elephant” parading the streets to the applause of an adoring population. This image was obtained by the antecedent-consequent method of evaluating concepts in India by Triandis (1972). On the other hand, in Australia tall poppies are shot down (Feather, 1994) and in Sweden people avoid standing out (Daun, 1992). They even have a word in Swedish that means “to avoid standing out.”

Hypothesis 53. Vertical individualism increases the probability of competition (Triandis, 1995).

Factor analyses of the items that define vertical individualism indicate that those who endorse these items want to “be the best.” They also believe that competition is a law of nature.

Hypothesis 54. Horizontal individualism increases the probability that individuals (a) will be motivated by the good, comfortable life and (b) will seek to be unique without standing out (Inglehart, 1997).

Factor analyses of the items that define horizontal individualism indicate that those who endorse them say that they want to be unique and to have a comfortable life.

Hypothesis 55. When resources are limited and the culture is collectivist, individuals (a) will believe that they have many enemies and (b) will not trust people (Adams, 2005).

In Africa many tribes have strong beliefs in witchcraft, and almost every calamity is attributed to witchcraft. People often believe that they have many enemies (Adams, 2005) and that these enemies are responsible for the calamities. Because resources tend to be limited in that part of the world, it seems plausible that this is an important condition for feeling that one has enemies. Collectivism is associated with hostility toward out-groups, so it is especially likely that the enemies will be members of the out-group. Obviously, if one is surrounded by enemies, one cannot trust people.

Hypothesis 56. When resources are plentiful and the culture is individualist, people will trust each other (Buchan, 1998).

Individualists have less of a bias against out-groups than do collectivists. If resources are plentiful, one can afford taking a chance and thus trust others. The fact that trust is higher in rich countries and among urban populations than among rural populations (Adams, 2005) suggests that both affluence and individualism are necessary conditions for trust.

Peasant populations have been found to be low in trust (Foster, 1965). They have the concept of “limited good,” which states that good is limited, so if another person gets it, one has less of it. This perception may well be the consequence of the “good” being tied to the land. If one’s neighbor gets more land, the individual has less land. Thus, one distrusts most of one’s neighbors. In collectivist cultures out-groups are distrusted, and this must be especially strong when one has limited resources, and thus cannot afford to give any “good” away.

Hypothesis 57. The more collectivist the culture, the more do politicians what their political parties specify.

Collectivism increases the importance of in-groups. A politician's party is probably an in-group. In collectivist cultures people do what their in-groups want them to do.

Hypothesis 58. In collectivist cultures people see the self as close to the in-group and far from the out-group. In individualist cultures people see the self as autonomous and standing away from others (Iyengar, Lepper, & Ross, 1999).

The hypothesis posits that it holds for all collectivist cultures.

Hypothesis 59. In horizontal collectivist cultures people are high in the need for affiliation and in modesty (Kurman, 2001, 2003).

The hypothesis posits that it holds for all horizontal collectivist cultures.

Hypothesis 60. In vertical individualist cultures people are high in the need for power, achievement and prestige. (Daun, 1992).

Studies found that those high in vertical individualism admit that they have shoplifted in the past (Sweeney, 2007) and are more likely to have voted for Bush, while those who are high in horizontal individualism are more likely to have voted for Kerry (Nelson, 2008). The managers of Enron and other corporations that defrauded the public were probably high in vertical individualism. The hypothesis is that these findings hold for all vertical individualist cultures.

Hypothesis 61. In horizontal cultures people see little difference in the status of white and blue collar jobs and are willing to dirty their hands. In vertical cultures high-status people refuse to dirty their hands.

Observations in Scandinavia, which tends to be horizontal, as opposed to Southern Europe, which tends to be vertical, suggest this hypothesis.

Hypothesis 62. In horizontal individualist cultures people are motivated to appear to be unique (Triandis & Gelfand, 1998).

Horizontal individualists tend to agree with items that indicate that they feel unique.

Hypothesis 63. In vertical collectivist cultures people are motivated, more than in other cultures, to conform to authorities (Bond & Smith 1996).

This was the finding of the Bond & Smith meta-analysis. The hypothesis is that the finding holds for all vertical collectivist cultures.

Hypothesis 67. In collectivist cultures people see social behavior under the influence of external factors (group pressure, norms, role-definitions); in individualist cultures people see social behavior under the influence of internal factors (beliefs, attitudes, personality) (Nisbett, 2003).

Empirical work suggests this tendency. The hypothesis posits that the finding holds for most collectivist and individualist cultures.

Hypothesis 68. In simple culture people favor harmony with or subjugation to nature. In complex cultures they emphasize dominance over nature (Kluckhohn & Stottbeck, 1961).

The behavior and beliefs of Native Americans and other simple cultures suggests that they see humans in harmony with or subjugated to nature. On the other hand, in complex cultures there is a tendency to dominate nature (hydroelectric dams, change in the direction of rivers, and the like).

Hypothesis 69. In simple cultures people favor little or no social change, stability, the traditional, the parochial; in complex cultures people emphasize willingness to change, the new is good, a cosmopolitan perspective is good.

In simple cultures there is little social change, and people get used to little change, so they favor stability. In complex cultures there is much social change, and there is acceptance of change and the global society.

Hypothesis 70. In horizontal collectivist cultures the most important motive is cooperation; in vertical individualist cultures it is competition. In horizontal individualist cultures it is being unique (Triandis, 1995); in vertical collectivist cultures it is conforming to in-group authorities (Bond & Smith, 1996).

This hypothesis summarizes previous hypotheses in one place.

Hypothesis 71. The more simple and collectivist the culture, the more likely it is to be religious (Triandis & Singelis, 1998).

Religion is associated with tradition and security. Simple collectivist cultures are especially high in tradition and security-seeking.

Hypothesis 72. Ecology determines the conceptions of the deity.

In the desert one can see the whole horizon, so the idea of “one God” is very probable. In Greece the horizon was broken by mountains, and thus different gods were necessary. In a jungle there will be different spirits behind every bush. Campbell (1988, p. 101) puts it this way: “Geography has done a great deal to shape our culture and our religion. The god of the desert is not the god of the plains...or the god of the rain forest. ...[w]hen you are in the desert with one sky and one world, then you might have one deity, but in the jungle where there is no horizon and you never see more than a few yards away from you, you do not have that idea anymore.”

MORE THAN ONE CULTURAL ATTRIBUTE AND SOCIAL BEHAVIOR

Hypothesis 73. When the culture is both simple and tight, it is likely to be high in collectivism (Triandis, 1994), and the behaviors and patterns of thinking of collectivists mentioned in hypotheses 27–48 are likely to be observed.

We find more collectivism in simple, isolated (likely to be tight) ecologies. For example, Realo et al. (1997) collected data from 1031 Estonians, including 17 inhabitants of the island of Kihnu. The collectivist scores of this isolated sample were among the highest observed in this study.

Hypothesis 74. People in tight and collectivist cultures will emphasize processes (what people did, if they behaved according to in-group norms) more than outcomes (if the people succeeded).

The highest priority in tight-collectivist cultures is the correct behavior of in-group members. Thus, we expect members of these cultures to emphasize what people do more than whether people succeed or fail in what they do.

Hypothesis 75. When the culture is both complex and loose, it is likely to be high in individualism (Triandis, 1994).

Complexity increases the probability that persons might have several in-groups and thus can define themselves independently of any of them.

CONCLUSION

I provided 75 hypotheses linking ecology, culture, and behavior. If most of these are supported, the insights of the ancient Greek historians will have proven extremely fruitful.

REFERENCES

- Abrams, D., Ando, K., & Hinkle, S. (1998). Psychological attachment to groups: Cross-cultural differences in organizational identification and subjective norms as predictors of workers' turnover intentions. *Personality and Social Psychology Bulletin*, 24, 1027–1039.
- Adams, G. (2005). The cultural grounding of personal relationships: Enemyship in North America and West African worlds. *Journal of Personality and Social Psychology*, 88, 948–968.
- Allport, G. W. (1937) *Personality*. London: Constable.
- Ball, J., & Moselle, K. (1995). Health risk behaviors of adolescents in Singapore. *Asian Journal of Psychology*, 1, 54–62.
- Barkow, G., Cosmides, L., & Tooby, J. (Eds.). (1992). *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Benedict, R. (1934). *Patterns of culture*. Boston: Houghton-Mifflin.
- Berry J. W. (1976). *Human ecology and cognitive style*. Beverly Hills, CA: Sage.
- Berry, J. W. (1979). A cultural ecology of human behavior. In L. Berkowitz (Ed.). *Advances in experimental social psychology* (Volume 12, pp. 177–207). New York: Academic Press.

- Berry, J.W. (2003). Origin of cross-cultural similarities and differences in human behavior: An ecocultural perspective. In A. Toomela (Ed.), *Cultural guidance in the development of the human mind* (pp. 97–109). Westport, CT: Ablex.
- Boldt, E. D., & Roberts, L. W. (1979). Structural tightness and social conformity. *Journal of Cross-Cultural Psychology*, 10, 221–230.
- Bond, R., & Smith, P. B. (1996) Culture and conformity: A meta-analysis of studies using Asch's (1952b, 1956) line judgment task. *Psychological Bulletin*, 119, 111–137.
- Brewer, M., & Yaki, M. (2007). Culture and social identity. In S. Kitayama & D. Cohen (Eds.) *Handbook of cultural psychology* (pp. 307–322). New York: The Guilford Press.
- Brewer, M. B., & Campbell, D. T. (1976). *Ethnocentrism and intergroup attitudes: East African evidence*. New York: Halsted/Wiley.
- Buchan, N. R. (1998). Culture, fairness, and trust: Contrasting influences on negotiation behavior and outcomes in China, Korea, Japan, and the United States. *Dissertation Abstracts International*, Section A, 59, (p. 1256).
- Campbell, D. T. (1958). Common fate, similarity, and other indices of status of aggregates of persons as social entities. *Behavioral Science*, 3, 14–25.
- Campbell, D.T. (1965). Variation and selective retention in socio-cultural evolution. In J. R. Barringer, G. Blanksten, & R. Mack (Eds.), *Social change in developing areas* (pp. 19–49). Cambridge, MA: Schenkman.
- Campbell, J. (1988). *The power of myth*. New York: Doubleday.
- Carneiro, R. L. (1970). Scale analysis, evolutionary sequences, and the ratings of cultures. In R. Naroll & R. Cohen (Eds.), *A handbook of method in cultural anthropology*. New York: Columbia University Press.
- Carpenter, S. (2000). Effects of cultural tightness and collectivism on self-concept and causal attributions. *Cross-Cultural Research*, 34, 38–56.
- Cheung, F. M., Leung, K., Zhang, J. H., Sun, H. F., Gan, Y. Q., Song, W.Z., et al. (2001). Indigenous Chinese personality constructs: Is the five-factor model complete? *Journal of Cross-Cultural Psychology*, 32, 407–433.
- Chick, G. (1997). Cultural complexity: The concept and its measurement. *Cross-Cultural Research*, 31, 275–307.
- Chiu, C., Dweck, C. S., Tong, J. Y., & Fu, J. H. (1997). Implicit theories and concepts of morality. *Journal of Personality and Social Psychology*, 73, 923–40.
- Chiu, C., & Hong, Y. (1999). Social identification in a political transition: The role of implicit beliefs. *International Journal of Intercultural Relations*, 23, 297–18.
- Choi, I., & Nisbett, R. E. (2000). Cultural psychology of surprise: Holistic theories and recognition of contradiction. *Journal of Personality and Social Psychology*, 79, 890–05.
- Cohen, D. (2001). Cultural variation: Considerations and implications. *Psychological Bulletin*, 127, 451–471.
- Cohen, D., Nisbett, R. E., Bowdle, B. F., & Schwarz, N. (1996). Insult, aggression, and the Southern culture of honor: An “experimental ethnography.” *Journal of Personality and Social Psychology*, 70, 945–960.
- Creighton, M. R. (1990). Revising shame and guilt cultures: A forty-year pilgrimage. *Ethos*, 18, 279–307.
- Daun, A. (1992). Modern and modest: Mentality and self-stereotypes among Swedes. In A. Sjoegren & L. Janson (Eds.), *Culture and management* 16(3), 1–10. Stockholm: Institute of International Business, Series A-7.
- Dawson, J. L. M. (1969). Theoretical and research bases of bio-social psychology. *University of Hong Kong Supplement to the Gazette*, 16, No. 3, 1–10.
- Diamond, J. (1999). *Guns, germs, and steel: The fates of human societies*. New York: W.W. Norton.
- Falbo, T. (1992). Social norms and the one-child family. In F. Boer & J. Dunn (Eds.), *Children's sibling relationship: Developmental and clinical issues*. (pp. 71–82). Hillsdale, N.J.: Erlbaum.
- Feather, N. T. (1994). Attitudes toward high achievers and reactions to their fall: Theory and research concerning tall poppies. In M. Zanna (Ed.) *Advances in Experimental Social Psychology*, (pp. 1–73). New York: Academic Press.
- Fischer, D. H. (1991). *Albion's seed*. New York: Oxford University Press.
- Fiske, A. P. (1990). *Structures of social life: The four elementary forms of human relations*. New York: Free Press.
- Foster, G. M. (1965). Peasant society and the image of limited good. *American Anthropologist*, 67, 293–315.
- Freeman, M. (1997). Demographic correlates of individualism and collectivism: A study of social values in Sri Lanka. *Journal of Cross-Cultural Psychology*, 28, 321–341.
- Gelfand, M., Erez, M. & Aycan, Z. (2007): Cross-cultural organizational behavior. *Annual Review of Psychology*, 58, 479–514.
- Gelfand, M., Nishii, L., & Raver, J. I. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, 91, 1225–1244.

- Georgas, J., & Berry, J. W. (1995). An ecocultural taxonomy for cross-cultural psychology. *Cross-Cultural Research*, 29, 121–157.
- Gerganov, E. N., Dilova, M. L., Petkova, K. G., & Paspalanova, E. P. (1996). Culture-specific approach to the study of individualism/collectivism. *European Journal of Social Psychology*, 26, 277–297.
- Glenn, E., & Glenn, P. (1981). *Man and mankind: Conflicts and communication between cultures*. Norwood, NJ.: Ablex Co.
- Herodotus (1954, 1996) *The histories*. London: Penguin Books.
- Herskovits, M. J. (1955). *Cultural anthropology*. New York: Knopf.
- Hofstede, G. (1980, 2001). *Culture's consequences*. Beverly Hill, CA: Sage.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.
- Holtgraves, T. (1997). Styles of language use: Individual and cultural variability in conversational indirectness. *Journal of Personality and Social Psychology* 73, 624–637.
- Hsu, F. L. K. (1983). *Rugged individualism reconsidered*. Knoxville: University of Tennessee Press.
- Hui, C. H., & Yee, C. (1999). The impact of psychological collectivism and workgroup atmosphere on Chinese employees' job satisfaction. *Applied Psychology, An International Review*, 48, 175–185.
- Hyun, K. J. (2001). Sociocultural change and traditional values: Confucian values among Koreans and Korean Americans. *Internal Journal of Intercultural Relations*, 25, 203–229.
- Ibrahim, R. (2007). *The al-Qaeda reader*. New York: Broadway books.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton, NJ: Princeton University Press.
- Inglehart, R. & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, 65, 19–51.
- Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, 76, 349–66.
- Iyengar, S. S., Lepper, M. R., Ross, L. (1999). Independence from whom? Interdependence from whom? Cultural perspectives on ingroups versus outgroups. In D. A. Prentice, & D. T. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 273–01). New York: Russell Sage Foundation.
- Kashima, E. S., & Kashima, Y. (1998) Culture and language: The case of cultural dimensions and personal pronoun use. *Journal of Cross-Cultural Psychology*, 29, 461–486.
- Kitayama, S., & Cohen, D. (Eds.). (2007). *Handbook of cultural psychology*. New York: The Guilford Press.
- Kitayama, S., Duffy, S., & Uchida, Y. (2007). Self as cultural mode of being. In S. Kitayama & D. Cohen (Eds.) *Handbook of cultural psychology*, (pp.136–174) New York: The Guilford Press.
- Kitayama, S., Ishii, K. Imada, T. Takemura, K., & Ramaswamy, J. (2006). Voluntary settlement and the spirit of independence: Evidence from Japan's "northern frontier." *Journal of Personality and Social Psychology*, 91, 369–384.
- Kluckhohn, K. (1954). Culture and behavior. In G. Lindzey (Ed.), *Handbook of social psychology* (Vol. 2, pp. 921–976). Cambridge, MA: Addison-Wesley.
- Kluckhohn, F., & Strodtbeck, F. (1961). *Variations in value orientations* Evanston, IL : Row, Peterson.
- Kohn, M. K. (1969). *Class & conformity*. Homewood, IL: Dorsey Press.
- Kroeber, A., & Kluckhohn, C. (1952). *Culture: A critical review of concepts and definitions*. Cambridge, MA: Peabody Museum.
- Kurman, J. (2001). Is self-enhancement related to modesty or to individualism-collectivism? A test with four Israeli groups. *Asian Journal of Social Psychology*, 4, 225–238.
- Kurman, J. (2003). Why is self-enhancement low in certain collectivist cultures? *Journal of Cross-Cultural Psychology*, 34, 496–510.
- Leung, K., (1997). Negotiation and reward allocations across cultures. In P.C. Earley & M. Erez (Eds.), *New perspectives on international industrial and organizational psychology* (pp. 640–75). San Francisco: Lexington Press.
- Leung, K., & Bond, M. H. (2003). Social axioms: A model of social beliefs in multicultural perspective. In M. Zanna (Ed.) *Advances in Experimental Social Psychology*, 38, 122–197.
- Leung, K. Bond, M. H., de Carrasquel, S. R., Munoz, C., Hernandez, M., Murakami, F., et al. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology* 33, 286–302.
- Levine, R. (1997). *The geography of time*. New York: Basic Books.
- Lillard, A. (1998). Ethnopsychologies: Cultural variations in theories of mind. *Psychological Bulletin*, 123, 3–32.

- Lin, Z. (1997). Ambiguity with a purpose: The shadow of power in communication. In P. C. Earley & M. Erez (Eds.), *New perspectives on international industrial and organizational psychology* (pp. 363–76). San Francisco: Lexington Press.
- Lomax, A. & Berkowitz, W. (1972). The evolutionary taxonomy of culture. *Science*, 1777, 228–239.
- Markus, H. & Kitayama, S. (1991). Culture and self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- McBride, A. (1998). Television, individualism, and social capital. *Political Science and Politics*, 31, 542–555.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- McKelvey, B. (1982). *Organizational systematics: Taxonomy classification & evolution*. Los Angeles: University of California Press.
- Mesquita, B., & Leu, J. (2007). The cultural psychology of emotion. In S. Kitayama & D. Cohen (Eds.), *Handbook of Cultural Psychology* (pp. 734–759). New York: Guilford.
- Mills, J. & Clark, M. S. (1982). Exchange and communal relationships. In L. Wheeler (Ed.), *Review of personality and social psychology*. (Vol. 3, pp. 121–144). Beverly Hills, CA: Sage.
- Nelson, M. (2008). *Beyond de Tocqueville: Intracultural individualism and the role of vertical and horizontal distinctions in the 2004 U.S. presidential election*. [*] Manuscript submitted for publication.
- Nisbett, R. (2003). *The geography of thought*. New York: Free Press.
- Nisbett, R. E. (1990). Evolutionary psychology, biology, and cultural evolution. *Motivation and Emotion*, 14, 255–263.
- Nisbett, R. E., & Cohen, D. (1996). *Culture of honor: The psychology of violence in the South*. Boulder, CO: Westview Press.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291–310.
- Norenzayan, A., Choi, I., & Nisbett, R. E. (1999). Eastern and Western perceptions of causality for social behavior: Lay theories about personalities and situations. In D. A. Prentice & D. T. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 239–272). New York: Russell Sage Foundation.
- Noricks, J. S., Agler, L. H., Bartholomew, M., Howard-Smith, S., Martin, D., Pyles, S., et al. (1987). Age, abstract things and the American concept of person. *American Anthropologist*, 89, 667–675.
- Ohbuchi, K.-I., Fukushima, O., & Tedeschi, J. T. (1999). Cultural values in conflict management: Goal orientation, goal attainment, and tactical decision. *Journal of Cross-Cultural Psychology*, 30, 51–71.
- Oyserman, D., & Lee, S. W. (2007). Priming “culture”: Culture as situated cognition. S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 255–282). New York: The Guilford Press.
- Paulhus, D. L., & Suedfeld, P. (1988). A dynamic complexity model of self-deception. In J. S. Lockard & D. L. Paulhus (Eds.), *Self-deception: An adaptive mechanism?* (pp. 132–145). Englewood Cliffs, NJ: Prentice Hall.
- Pelto, P. J. (1968, April). The difference between “tight” and “loose” societies. *Transaction*, 37–40.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics and reasoning about contradiction. *American Psychologist*, 54, 741–754.
- Petzold, N. (1988). Only children in the People’s Republic of China. *Psychologie in Erziehung und Unterricht*, 35, 81–89.
- Realo, A., Allik, J., & Vadi, M. (1997). The hierarchical structure of collectivism. *Journal of Research in Personality*, 31, 93–116.
- Schimmack, U., Oishi, S., & Diener, E. (2005). Individualism: A valid and important dimension of cultural differences between nations. *Personality and Social Psychology Review*, 9, 17–31.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–66). New York: Academic Press.
- Shweder, R. A., & Bourne, E. J. (1982). Does the concept of person vary cross-culturally? In A. J. Marsella & G. M. White (Eds.), *Cultural conceptions of mental health and therapy* (pp. 130–204). London: Reidel.
- Sperber, D. (1996). *Explaining culture: A naturalistic approach*. Oxford: Blackwell.
- Stephan, W. G., Stephan, C. W., & de Vargas, M. C. (1996). Emotional expression in Costa Rica and the United States. *Journal of Cross-Cultural Psychology*, 27, 147–160.
- Sweeney, J. (2007). The impact of individualism and collectivism on shoplifting attitudes and behaviors. *University of California Irvine Undergraduate Research Journal*, 61–68.
- Thucydides (1934). *The complete writings of Thucydides*. New York: The Modern Library.
- Triandis, H. C. (1972). *The analysis of subjective culture*. New York: Wiley.

- Triandis, H. C. (1973). Work and non-work: Intercultural perspectives. In M. D. Dunnette (Ed.), *Work and non-work in the year 2001* (pp. 29–52). Monterey, CA: Brooks/Cole.
- Triandis, H. C. (1976). *Variations in black and white perceptions of the social environment*. Urbana: University of Illinois Press.
- Triandis, H. C. (1990). Theoretical concepts of use to practitioners. In R. Brislin (Ed.), *Cross-cultural applied psychology* (pp. 34–55). Sage, pp. 34–55.
- Triandis, H. C. (1994). *Culture and social behavior*. New York: McGraw-Hill.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, 51, 407–415.
- Triandis, H. C., & Gelfand, M.J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Triandis, H. C., & Singelis, T. M. (1998). Training to recognize individual differences in collectivism and individualism within culture. *International Journal of Intercultural Relations*, 22, 35–48.
- Triandis, H. C., & Vassiliou, V. (1972). Interpersonal influences and employee selection in two cultures. *Journal of Applied Psychology*, 56, 140–145.
- Triandis, H. C., Dunnette, M. & Hough, L. (Eds.) (1994). *Handbook of industrial and organizational psychology* (2nd edition, Vol. 4). Palo Alto, CA: Consulting Psychologists Press.
- Trommsdorff, G., Mayer, B., & Albert, I. (2004). Dimensions of culture in intra-cultural comparisons: Individualism/collectivism and family related values in three generations. In H. Vinken, J. Soeters & P. Ester (Eds.), *Comparing cultures: Dimensions of culture in comparative perspective*. (pp. 157–180). Leiden, Netherlands: Brill.
- Turnbull, C. M. (1972). *The mountain people*. New York: Simon & Schuster.
- Vandello, J., & Cohen, D. (1999). Patterns of individualism and collectivism across the U.S. *Journal of Personality and Social Psychology*, 77, 279–292.
- Van de Vliert, E. (2007). Climitoeconomic roots of survival versus self-expression culture. *Journal of Cross-Cultural Psychology*, 38, 156–172.
- Van de Vliert, E., Schwartz, S. H., Huismans, S. E., Hofstede, G., & Daan, S. (1999). Temperature, cultural masculinity, and domestic political violence: A cross-national study. *Journal of Cross-Cultural Psychology*, 30, 291–314.
- Vico, G. (1948, 1970). *The new science*. Translated by T. G. Bergin & M. H. Fish published (1744). Ithaca, NY: Cornell University Press.
- Wasti, S. A. (2002). Affective and continuance commitment to the organization: Test of an integrated model in the Turkish context. *International Journal of Intercultural Relations*, 25, 525–550.
- Whiting, J. (1973). A model for psychocultural research. In E. H. Chasdi, (Ed.), *Culture and human development: The selected papers of John Whiting* (pp. 89–101. Cambridge, UK: Cambridge University Press. (Originally published in 1973)

11 Climate, Psychological Homeostasis, and Individual Behaviors Across Cultures

Nader T. Tavassoli

In cold countries, they will have very little sensibility for pleasure; in temperate countries, they have more; in warm countries, their sensibility is exquisite. As climates are distinguished by degrees of latitude, we might distinguish them also in some measure by those of sensibility. I have been at the opera in England and in Italy, where I have seen the same pieces and the same performers; yet the same music produces such different effects on the two nations: one is so cold and phlegmatic, and the other so lively and enraptured, that it seems almost inconceivable.

Montesquieu
1748, p. 223.

Why are the Italians so Italian and the English so English? Are the Italians more sensitive to pleasure because they are, in general, happier than the English? Might they misattribute this feeling? Do they have a subjectively *different*, more sensitive, experience? Or do they have a different emotional expression for the *same* sensual experience? Are these psychological effects caused by cultural factors or by environmental factors such as temperature, as hypothesized by Montesquieu based on anecdotal and now outdated 18th-century physiological arguments (e.g., humors)?

The notion that temperature could influence individual behavior across cultures stands in contrast to the conventional view, first voiced by Murdock (1932), that culture is “independent of the laws of biology and psychology.” In anthropology and sociology it has similarly been argued that social phenomena such as culture are self-contained entities that can only be explained in terms of other social phenomena (Durkheim, 1895), that culture can only be explained in terms of itself (Lowie, 1917). As such, a “scientific approach” to understanding cultural differences has been rejected in favor of a “thick” description of culture as one would interpret literature (Geertz, 1973).

Several researchers have described *indirect* influences of climate on behavior by shaping denotative (beliefs), connotative (attitudes, norms and values), and pragmatic (procedural rules) aspects of culture. Berry’s (1976) ecocultural theory maps out the emergence of different social structures in agrarian and hunter-gatherer societies and has offered some support for the role of temperature and precipitation across nonindustrialized societies (Georgas & Berry, 1995). Similarly, climate and terrain may have contributed to a culture’s social orientation—collectivism versus individualism—through their limiting and motivating influence on social processes (e.g., the amount of time spent indoors), dependence on technology, and economic activity (Hofstede, 1980; Triandis, 1995). Relatedly, cultural tightness has been associated with cold climates that forbid “undisciplined” behavior, and cultural looseness with warm climates that do not necessitate personal “control” to “conquer” the environment (Triandis, 1995). As such, culture can be seen as a cognitive map that helps people adapt to the environment (Laszlo & Masulli, 1993).

This chapter further proposes that climate can have *direct* effects on individual behavior across cultures. Building on Parker and Tavassoli (2000), I offer an alternative explanation based

on homeostasis, the process by which the body seeks to regulate its internal environment. The intensity and duration of sunlight and experienced temperature create physical and psychological need states that moderate certain behaviors. This analysis relies on the assumption of physical and psychological universals (Murdock, 1945; Norenzayan & Heine, 2005) underpinned by psychology's biological roots (Benjamin, 1988).^{*} Homeostatic effects may operate in parallel with cultural factors to affect previously unidentified cross-cultural variations, they may confound existing cultural explanations for such variations, or they may interact with cultural factors to explain cross-cultural variations in behavior.

HOMEOSTASIS

Homeostasis is the result of a system of controls acting through three major mechanisms—hormones, neurotransmitters, and neural “reflexes.” It is a system concerned with emotions and drives—whose key neuronal mechanisms are concentrated in the hypothalamus (Kupfermann, 1991).[†] The homeostatic mechanism of *thermoregulation* that responds to variations in experienced temperatures is most widely understood. A departure from an internal core body temperature of about 37 degrees Celsius (98.6 degrees Fahrenheit) can lead to physical discomfort, illnesses such as hypothermia or heatstroke, and death. The hypothalamus controls body temperature through physical responses (e.g., sweating or shivering) and further integrates feedback from diverse systems (e.g., blood-sugar level) to affect motivated behaviors such as food intake via appetite and satiety. More complex consumption such as clothing and housing is also related to thermoregulation.

PSYCHOLOGICAL HOMEOSTASIS

Parker and Tavassoli (2000) termed a second mechanism *psychological homeostasis*. Humans not only need to maintain a consistent internal core temperature but also need to achieve a homeostatic balance in hormones and neurotransmitters themselves. These are sensitive to variations in both the intensity and duration of sunlight, as well as in temperature. For example, sunlight stimulates the production of dopamine and serotonin, two of the major neurotransmitters (Roberts, 1995). As the result of less intense sunlight, persons residing closer to the poles (which affects the angle to the sun) have lower levels of dopamine and serotonin, on average, than persons living closer toward the equator, especially during winter (Lambert, Reid, Kaye, Jennings, & Esler, 2002).

Departure from psychological homeostasis appears to influence affect and arousal-related behaviors in particular. For example, serotonin has been associated with positive affect (Zajonc, 1994), possibly interacting with dopamine, which is involved in the brain's reward system (Brown & Gershon, 1993). When sunshine is less abundant and less intense, these neurotransmitters need to be stimulated in other ways. Consumption of ethanol, cocaine, caffeine, or nicotine can be used to regulate the homeostatic balance by up-regulating the availability of dopamine and serotonin in the brain (Wise, 1987). In that sense, these *pharmacological consumption* behaviors (Parker & Tavassoli, 2000) can be considered mood-balancing consummations (cf. Thayer, 1989). Consistent with this model, the per capita consumption of alcohol, cocoa, coffee, tea, and tobacco across 139 countries was higher in higher absolute latitudes ($R^2 = .51$) even when controlling for income (Parker & Tavassoli, 2000).

* Selection pressures that result in genetic group-level differences are likely to be related to traits such as thermal fitness rather than to traits relevant to the behaviors of interest here (Cavalli-Sforza & Cavalli-Sforza, 1995). However, I recognize that, even if the relevant genetic make-up is the same, there are biocultural influences on developmental plasticity that could result in “hardware” differences between cultural groups (Li, 2003).

† Behavioral responses are guided in complex ways, and I only focus on the central nervous system and its major neurotransmitter systems. These are extensively interconnected and themselves affect other systems such as hormonal responses.

CLIMATE AND BEHAVIOR

FELT AFFECT (MOOD)

Pharmacological consumption responds to variations in sunlight (and temperature, as discussed below), but it is not a perfect surrogate. Seasonal variations in mood, depression and suicide prevail, despite adaptations in pharmacological consumption. Suicide rates are higher in higher absolute latitudes ($R^2 = .37$; Parker & Tavassoli, 2000), an effect that has also been found within the narrow climatic range of the U.S. (Lester, 1970). The physiologically related prevalence of seasonal affective disorder (SAD) has been estimated at 0 percent near the equator, 12.4 percent in Denmark and as high as 22 percent in Sweden (Magnusson, 2000). Furthermore, suicides (Durkheim, 1897) and depression (Hippocrates, 460–370 SC) have long been described as seasonal disorders, and a winter peak in depression has been confirmed across countries with the amplitude of this peak lower in lower absolute latitudes (Aschoff, 1981). The general population shows related mood effects, with up to 95 percent of the U.S. population experiencing seasonal mood and behavioral changes characteristic of SAD (for a review, see Spoont, Depue, & Krauss, 1991). Whereas Hippocrates, and later Montesquieu, suspected temperature to drive affective behaviors, it appears instead that natural sunlight with its effect on serotonin (van Praag, 1982) has a critical influence on felt affect (e.g., Dalgleish, Rosen, & Marks, 1996; Hill, 1992).

The severity of the behavioral response to variations in felt affect is evident in seasonal swings in SAD and suicide rates and the scope in the large number of U.S. Americans who experience seasonal mood swings. It is, therefore, highly likely that psychological and social behaviors that are influenced by mood and emotions will vary across cultures, if only in terms of seasonal patterns that gain in amplitude towards the poles. Mood and emotions influence all aspects of cognition and behavior—including attention, subjective well-being, attitudes and persuasion, reasoning and decision making, and interpersonal relationships (for a review, see Cacioppo & Gardner, 1999). Therefore, a physiological model may well offer new venues for cross-cultural analysis across latitudes and/or in terms of seasonal variations.

Despite these findings, the idea that climate directly influences psychology and behavior does not sit comfortably with many. Consequently, research has attempted to minimize the *direct* effect of climate. For example, it has been concluded that “culture determines emotional experience” and that “socioeconomic and cultural factors are more important predictors of affect balance and SWB [subjective well being] than is climate” (Basabe, Paez, & Valencia, 2002). On the one hand, this might be unsurprising, as humans are emotionally highly adaptive to both positive and negative life events (Brickman, Coates, & Janoff-Bulman, 1978; Diener, Lucas, & Scollon, 2006), and climate may be one of them. On the other hand, this is a surprising conclusion given the strong evidence that mood and even current weather (e.g., sunshine or rain) affect reports of life satisfaction (Schwarz & Clore, 1983). Given the rather dramatic difference in the strength of seasonal effects (suicides and major depression) and scope of these effects (e.g., up to 95 percent of the U.S. population), one might expect that climate does play some role.

Capturing a direct effect necessitates a careful modeling of the effect of climate. Climate affects people through weather—as expressed in the popular phrase “climate is what you expect, weather is what you get”—and climatic conditions can be highly seasonal.* In other words, one must separate the effect of climate—the long-term average weather that may shape cultural values over many generations (e.g., Hofstede, 1981; Triandis, 1995)—from that of experienced conditions that vary

* It is also important to note that the causal explanations advanced are probabilistic in nature; the physical environment does not determine behavior. This is an especially sensitive issue, because certain geographers were labeled as holding a deterministic view of climatic effects; climate was argued to not only correlate with cross-cultural differences in behavior, but to also determine these (e.g., the works of Huntington, 1913). It is my belief that identifying the effect of climate on universal physiological processes should disarm ethnocentric and racial attributions rather than reinforce them.

across seasons and daily weather conditions. Basabe et al.'s (2002) indicator of climate, a country's absolute latitude of its north-south midpoint, might not be reliable for that purpose. I describe how this proxy for climate might obfuscate the effect of sunlight and temperature. I do so for general research purposes rather than to criticize their work specifically. Indeed, controlling for the factors I list may well strengthen rather than weaken their (or any) conclusions.

1. Primary research is typically not based on representative national samples, and responses are collected in just one or a few cities. In that case, one should use the exact latitude, because a country's north-south midpoint can be grossly distorting. For example, the midpoint of the U.S. is 38°, but Miami, Florida, is at 26°, and there are cities in Hawaii at latitudes below 20°. Cities can be above 48° in Montana and above 71° in Alaska. The China midpoint of 39° is near the latitude of Beijing but significantly above that of the largest city, Shanghai, at 31° or Guangzhou, with over 12 million inhabitants, at 23°. Other cities in China's Hainan province lie below 19°, and northern ones lie above 64°. Similar distortions can be found in Argentina, Brazil, Russia, and Australia, whose midpoint is -22° but where Sydney, the largest city, lies at -34° degrees latitude. Given how close many countries in large samples are in terms of latitude, these types of distortions are significant. Using an arbitrary latitude (country's mid-point) as a proxy for climate may not, therefore, uncover the true effects of climate.
2. Climate is influenced by complex interactions of latitude, altitude, proportion of land to water, proximity to oceans and mountains, the circulation of the ocean, vegetation coverage, and other factors. Hence, local climates can vary dramatically, despite being at the same latitude. The altitude, which affects temperature and the intensity of sunlight, is 13 feet (4 meters) below sea level in Amsterdam and 7,349 feet (2,240 meters) above sea level in Mexico City. Climate can vary significantly within a single country (the typical unit of analysis). Although the climate in the U.S. is generally temperate, it is tropical in Hawaii and Florida, arid in the West's Great Basin, and semiarid in the central Great Plains, with permafrost in northern Alaska and various mountain ranges that further affect local climates. Latitude per se, even if based on respondents' precise location is, therefore, only a rough indicator of actual climate.
3. Van de Vliert (2007) observed that for temperature, one has to distinguish between linear geoclimatic effects (annual averages) and bioclimatic effects, the deviation from humans' comfortable temperature level. In other words, one should not necessarily expect linear effect of climate, but one should look for deviations from the homeostatic optimum. For example, both extremely hot and cold temperatures generate a degree of discomfort that might affect moods and other behaviors (Anderson, Anderson, Dorr, DeNeve, & Flanagan, 2000).
4. The angle at which sunlight strikes the earth varies by latitude, season, and time of day, creating variability in the duration and intensity of sunlight and temperature. In terms of latitude, latitude squared may be a better measure of climate due to the earth's curvature (Parker & Tavassoli, 2000). In terms of seasons, winter temperatures in Moscow (45° latitude), for example, can dip below -30° Celsius, with days as short as 7 hours and an angle of the sun (solar noon altitude) at 10.9 degrees. Summer temperatures can rise above 30° Celsius, with 17.5 hours of daylight and the angle of the sun at 57.7 degrees. It is thus important to analyze responses with respect to the season (if not actual weather condition) when the data are collected.
5. Using actual weather conditions is important, as the classic study by Schwarz and Clore (1983) showed. People contacted on sunny days reported higher levels of life satisfaction compared to those called on rainy days (as long as participants were not asked about the current weather). Although this study was based on misattribution of transitory weather-induced feelings, physiological influences should also be related to actual conditions rather

than long-term average annual conditions. It may also be useful to consider the interaction of actual weather and long-term climate (i.e., expected weather). For example, self-reported well-being might be a function of unexpected daily sunshine, that is, the actual weather compared to long-term statistics (Guven, 2007).

6. Time of day can have significant effects on the interpretation of temperature's effect on behavior. For example, the majority of physical assaults occur from 9 p.m. to 3 a.m. Looking at the simple relationship between temperature and assault can therefore be highly misleading because temperatures are lower at night than during the day (Bushman, Wang, & Anderson, 2005).
7. There may be no simple relation between climatic variables and culture-related behaviors, as climate might interact with other ecological variables. One example is the proposed interaction of climate with natural resources (Parker, 2000) or wealth (Van de Vliert, Huang, & Parker, 2004), that is, between needs (climate) and ability to satisfy the needs (resources/wealth). For example, levels of happiness and altruism were lower in societies at the same level of income but higher climatic stress (i.e., deviation from comfort level), and vice versa (Van de Vliert et al., 2004). Related observations have been made for various motivations, egotism versus cooperation, and autocratic versus democratic leadership styles (Van de Vliert, 2007). A different interaction effect related to subjective well-being is the finding that emotions are strong predictors of life satisfaction in individualist cultures, whereas social norms such as approval by others are strong predictors in collectivist cultures (Suh, Diener, Oishi, & Triandis, 1998).

It is possible that all or none of these factors influenced Basabe et al.'s (2002) data and analysis. In any case, controlling for these factors should at least provide a better test of the effects of the influence of cultural variables by reducing error variance. More specifically, these factors should be considered when directly examining the effects of sunlight and temperature on behavior. Going back to Montesquieu in the introduction, had he been to the opera on a cold and dreary winter day in Italy and on a hot and bright summer day in England, his observations might have been different.

EXPRESSED AFFECT

The vast majority of cross-cultural studies on expressed affect have focused on the universality of facial expressions and other nonverbal behaviors since Darwin (1872) made the observation that humans share patterns of facial expressions across cultures and with other animals. Montesquieu's quote in the introduction suggests that temperature moderates these patterns. This hypothesis has found support in a study of stereotypes of social expressiveness. In the northern (but not southern) hemisphere people report that they perceive southerners in their own countries as more emotionally expressive (Pennebaker, Rimé, & Blankenship, 1996). The authors hypothesized that this may be a direct or an indirect effect of heat. For example, temperature potentially affects the social fabric such that people see, hear, and interact with neighbors more often in warm climates. Emotional expressiveness may be an adaptation to maintain a social understanding of others (Pennebaker et al., 1996). A different "cultural" explanation proposes that masculinity—related to the importance attached to assertiveness and achievement—mediates the relationship between temperature and emotional expression in terms of aggression (Van de Vliert, Schwartz, Huismans, Hofstede, & Daan, 1999).

As discussed, using average annual temperatures might be misleading because people rarely experience "the average." One must, therefore, measure or estimate the temperature at the time of data collection to examine psychophysiological mechanisms that complement or rival cultural explanations. One such mechanism is based on the neurotransmitter norepinephrine, which causes excitation and which, when stimulated by heat, is released and synthesized (Anderson, Deuser, and DeNeve, 1995; Zajonc, 1994). Without including heat in a modeling exercise, researchers can

make wrong inferences regarding other variables. Consider the idea that the cultural variable of “southernness” explains cross-regional differences in violence in the U.S. This “culture of honor hypothesis” was based on the South’s ecocultural heritage: “Much of the South was a lawless, frontier region settled by people whose economy was based on herding” (Nisbett & Cohen, 1996, p. 4). However, when temperature and other sociodemographic variables were included in the modeling exercise, the influence of southernness became nonsignificant (Anderson & Anderson, 1996). In other words, not including temperature led to a serious omission of variables and faulty inferences.

Causal relations have been most clearly implied by the link between hot temperatures and aggression. Violent crime (e.g., homicide, rape, assault, and spousal abuse), aggressive behaviors (e.g., road rage), and aggressive motives are higher in hotter regions of the world, in hotter years, months and days, and in artificial lab conditions (for a review, see Anderson et al., 2000). Heat can affect a person’s internal cognitive state (e.g., increasing the accessibility of aggressive thoughts, scripts), affective state (e.g., feelings of anger), and arousal (e.g., by increasing the heart rate), which are themselves interlinked. This might occur because heat makes persons more excitable. Alternatively, heat might stimulate negative affect or arousal that is misattributed to an annoying person, thereby leading to increases in aggression (Anderson et al., 2000). Amplification processes such as the escalation of aggression (Goldstein, Davis, & Herman, 1975) and emotional contagion (Hatfield, Cacioppo, & Rapson, 1994) can increase these effects through interpersonal dynamics. Based on similar mechanisms, the type of affective expressiveness described by Montesquieu should be greater in hotter climates and during the summer, with attenuated seasonal swings in lower absolute latitudes.

AFFECTIVE SENSITIVITY

The aforementioned literature on emotional expressiveness suggests that temperature can influence persons’ reactions to the *same* subjective experience. Temperature might also affect the subjective experience of an event itself. A cognitive mechanism is based on the misattribution of arousal or affect, such as observed for aggression (Anderson et al., 2000) and life satisfaction (Schwarz & Clore, 1983). A more direct physiological mechanism is based on heat’s effect on the release of norepinephrine that can amplify the sensory response to an event (Panksepp, 1986). Heat can make people especially sensitive to both positive and negative emotional stimulation by increasing the arousal potential of affective stimuli. This suggests that it is a quality of the individual—as hinted by Montesquieu’s description of a more exquisite sensibility in warm countries—that moderates the experienced utility as a function of temperature. Put differently, when it is hot, people may require a lower “quantity” or “intensity” of emotional stimulation to gain the same level of subjective experience than when it is cold. This would have interesting implications for the cultural universal of music. That is, the intensity (e.g., tempo) of music that is created by artists and most commonly appreciated by consumers might vary across climates, seasons, or weather conditions.

THE OPTIMAL STIMULATION LEVEL

Felt affect, affective expression, and affective sensitivity are not the only possible explanations for Montesquieu’s observed variance. Because of homeostasis, his Italian audience may have been in a different need state than his English audience. (The discussion to follow, however, might argue for the *reverse* of the observed effect! It is nevertheless an interesting mechanism to consider.)

Psychological homeostasis has been directly studied as the maintenance of a person’s optimal stimulation level (Hebb, 1949; Wundt, 1893) or arousal (Yerkes & Dodson, 1908). Psychological pleasantness is highest at the optimal stimulation level itself (the peak in Figure 11.1), that is, the level of stimulation at which a person feels most comfortable. When the stimulation derived from the environment is too low (to the left of the peak) individuals will attempt to increase stimulation,

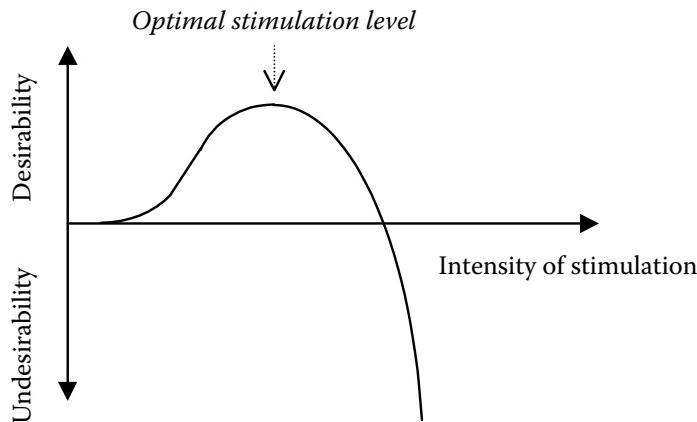


FIGURE 11.1 The Wundt curve.

and vice versa when stimulation is too high (to the right of the peak). This inverted-U relationship between the intensity of stimulation and pleasantness is known as the Wundt (1893) curve.

The biochemical basis involved in the homeostasis of optimal stimulation is evident in levels of the three main neurotransmitters: dopamine, norepinephrine, and serotonin (Zuckerman, 1994). Dopamine is involved in the anticipation of reward and, in this context, in the sensory arousal associated with novel and intense stimuli (Panksepp, 1986; Zuckerman, 1994). Serotonin is involved in inhibiting the behavioral reactions to stimulation. Norepinephrine provides the psychomotor arousal associated with stimulation itself (Panksepp, 1986). As discussed earlier, sunlight stimulates the production of dopamine and serotonin (Roberts, 1995), whereas heat stimulates the release and synthesis of norepinephrine.*

People should be more likely to be below their optimal stimulation level in colder climates and seasons and on days with less intense sunshine, and seasonal swings should be attenuated in lower absolute latitudes. For sensation seekers, who are naturally more likely to be below their optimal level of stimulation, this has been shown to be related to greater risk-taking, interest in novelty foods, liking for intense music, sexual humor, and other emotionally laden stimuli (for a review, see Zuckerman, 1994). Parker and Tavassoli (2000) hypothesized that these same behaviors should also be moderated by variations in sunlight and temperature. Indeed, the effect of differences in optimal stimulation may interact with those of other affective mechanisms that are also influenced by weather.

Consider risk-taking, which has mainly been studied from a cognitive perspective but that is also influenced by decision makers' feelings. Sad moods stimulate a desire for reward acquisition (mood repair) and increase the preference for higher payoffs at the expense of certainty (Raghunathan & Pham, 1999). In contrast, individuals in a mildly positive mood are more risk averse than individuals in a neutral mood (Isen & Patrick, 1983) and more willing to buy insurance against a loss (Arkes, Herren, & Isen, 1988). People in positive moods seem to be more risk averse because they have the emotional goal of maintaining their mood; they have less to gain and more to lose emotionally from winning low-probability gambles (Arkes, Herren, & Isen, 1988; Isen & Patrick, 1983). To this extent, climate might exhibit a profound effect on risk-taking through its seasonal and weather-based effects on *felt affect*.

* Note that the neurotransmitter systems are extensively interrelated and have both synergistic and antagonistic effects. For example, in the brain, norepinephrine is counteracted by serotonin and synthesized directly from dopamine. However, in behavioral terms, norepinephrine appears to be related to psychomotor arousal, whereas dopamine is related to sensory arousal (e.g., Panksepp, 1986).

Climate could also moderate risk-taking through the effect of temperature on norepinephrine, which can moderate *affective sensitivity*. In colder environments, more intense stimulation may be required to gain the same stimulating effect (Panksepp, 1986). Moreover, because of differences in *optimal stimulation level*, consumers in these environments should attach higher utility to sensory stimulation (Baumgartner & Steenkamp, 1996) and be more likely to seek stimulation in climates and seasons with less intense and less abundant sunshine to achieve psychological homeostasis. The uncertainty associated with risky choices can be arousing, and this arousal is experienced as pleasant up to a person's optimal level of stimulation, beyond which it is experienced as unpleasant (Scitovsky, 1992). For example, arousal (heart rate) increases in gambling situations, especially for larger bets (Anderson & Brown, 1984).

Explanations based on both felt affect and optimal stimulation level suggest that consumers' utility for arousal-inducing risks should be higher in colder climates and seasons with less intense sunshine and shorter daylight hours, because they are more likely to be below their optimal level of stimulation and because they are more likely to be in a more depressed mood state. Affective sensitivity also suggests that hot conditions should require less risk to generate the same utility. Unpublished seasonal data from several countries are consistent with this hypothesized relationship. Monthly instant lottery data that I collected from Massachusetts in the U.S. show a seasonal trend. Figure 11.2 graphs the seasonal variations in average instant lottery expenditures, showing a more than 8 percent difference between the winter and summer months. A longitudinal study on the extent of lottery play in Belgium shows that lottery expenditures are higher after reduced exposure to sunshine (Bruyneel, Dewitte, Fransens, & Dekimpe, 2005). Two national self-report surveys that tracked the day and weather conditions in which individual responses were collected found that weather-induced happiness leads to more savings and less risky behavior (Guven, 2007).

Cultural factors (e.g., taxes, laws, values, and attitudes) could also interact with climatic influences, either amplifying or attenuating them. For example, climate may affect risk-taking via people's value structures. Providing a link between physiological, behavioral, and motivational dimensions, Steenkamp and Burgess (2002) related the optimal stimulation level to the value of stimulation that is defined as excitement, novelty, and challenge in life (Schwartz 1992). Different research shows individualism and masculinity to correlate positively with the related trait variable of innovativeness (Steenkamp, ter Hofstede, & Wedel, 1999). Based on global patterns of these cultural traits—they vary positively with absolute latitude—culture should amplify the effects of temperature. Further amplifying this effect, Montesquieu speculated that countries' laws need to conform to climatic effects in order to be accepted, thereby affecting the ability to observe differences in need satisfaction.

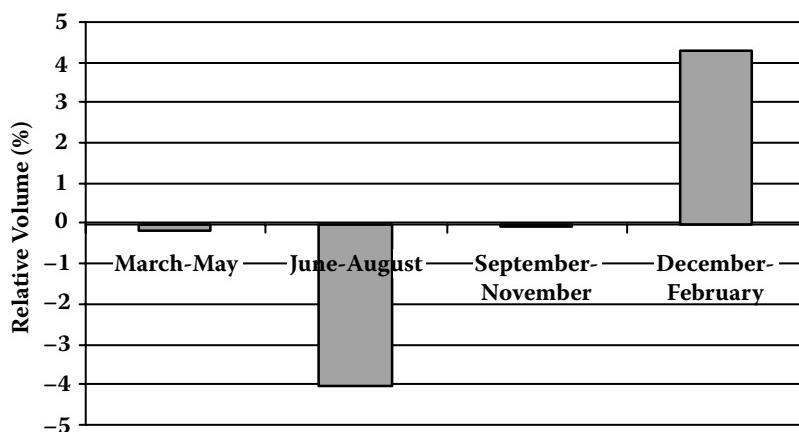


FIGURE 11.2 Instant lottery purchases in Massachusetts (1995–1999).

CONCLUSION

This chapter has described a causal chain in which sunlight and temperature affect human physiology and psychology, which, in turn, influences behaviors across cultures (e.g., seasonally). I focused primarily on affect, partially to facilitate the narrative, but also because I was able to most easily speculate on causal relations between physiological states susceptible to sunlight and temperature and felt affect, expressed affect, affective sensitivity, and optimal stimulation. Affect is known to influence virtually all aspects cognition and behavior—attention, attitudes and persuasion, reasoning and decision making, and interpersonal behaviors—and I explicitly mapped out the possible (complex) effects on risk-taking. A physiological model should, therefore, not diminish our fascination with cross-cultural behavior or make it trivial by reduction. Rather, such a model expands our understanding, allowing us to predict unanticipated interrelationships between physiology and behaviors across cultures.

This analysis complements the more traditional approach to the study of cross-cultural behavior, which considers the individual within a socio-cultural context. It not only suggests refinements for cross-cultural theories, but it also points to a serious omitted-variables problem that can produce faulty inferences in non-physiologically based cross-cultural models. My statistics professor made this point some decades ago when he showed us the positive correlation between daily ice cream sales and homicides in New York City. Would banning ice cream lower the homicide rate? Unlikely! Both are affected by temperature. We know that levels of cultural variables such as individualism and masculinity strongly correlate with countries' average annual temperature. We therefore need to be careful not to fall prone to the type of false causality illustrated by the ice cream–homicide example. When comparing consumption as well as social and psychological behaviors across cultures, it may therefore be instructive to consider climatic influences, and it may be critical to control for these when exploring other influences on behavior. Seasonal variations may be one way to tease these apart. On the positive side, controlling for climate in a more sophisticated manner may strengthen observed effects as well as uncover new ones.

REFERENCES

- Anderson, C. (1989). Temperature and aggression: Ubiquitous effects of heat on occurrence of human violence. *Psychological Bulletin, 106*, 74–96.
- Anderson, C. A., & Anderson, K. B. (1996). Violent crime rate studies in philosophical context: A destructive testing approach to heat and southern culture of violence effects. *Journal of Personality and Social Psychology, 70*, 740–756.
- Anderson, C. A., Anderson, K. B., Dorr, N., DeNeve, K. M., & Flanagan, M. (2000). Temperature and aggression. In M. Zanna (Ed.), *Advances in Experimental Social Psychology: Vol. 32* (pp. 63–133). New York: Academic Press.
- Anderson, G., & Brown, R. I. (1984). Real and laboratory gambling, sensation seeking and arousal. *British Journal of Psychology, 75*, 401–410.
- Anderson, C. A., Deuser, W. E., & DeNeve, K. M. (1995). Hot temperatures, hostile affect, hostile cognition, and arousal: Tests of a general model of affective aggression. *Personality and Social Psychology Bulletin, 21*(5), 434–448.
- Arkes, H. R., Herren, L. T., & Isen, A. M. (1988). The potential loss in the influence of affect on risk-taking behavior. *Organizational Behavior and Human Decision Processes, 42*, 181–193.
- Aschoff, J. (1981). Annual rhythms in man. In J. Aschoff (Ed.), *Handbook of behavioral neurobiology: Biological rhythms, Vol. 4*. (pp. 475–487). New York: Plenum Press.
- Basabe, N., Paez, D., & Valencia, J. (2002). Cultural dimensions, socioeconomic development, climate, and emotional hedonic level. *Cognition and Emotion, 16*(1), 103–125.
- Baumgartner, H., & Steenkamp, J.-B. E. M. (1996). Exploratory consumer buying behavior: Conceptualization and measurement. *International Journal of Research in Marketing, 13*, 121–137.
- Benjamin, L. T. (1988). *A history of psychology: Original sources and contemporary research*. New York: McGraw-Hill.

- Berry, J. W. (1976). *Human ecology and cognitive style: Comparative studies in cultural and psychological adaptation*. New York: Sage.
- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology*, 36, 917–927.
- Brown, A. S., & Gershon, S. (1993). Dopamine and depression. *Journal of Neural Transmission*, 91, 75–109.
- Bruyneel, S., Dewitte, S., Fransens, P. H., & Dekimpe, M. G. (2005). Why consumers buy lottery tickets when the sun goes down on them: The depleting nature of weather-induced bad moods. *Erasmus Research Institute of Management Report*, ERS-2005-045-MKT.
- Bushman, B. J., Wang, M. C., & Anderson, C. A. (2005). Is the curve relating temperature to aggression linear or curvilinear? Assaults and temperature in Minneapolis re-examined. *Journal of Personality and Social Psychology*, 89, 62–66.
- Cacioppo, J. T., & Gardner, W. L. (1999). Emotion. *Annual Review of Psychology*, 50, 191–214.
- Cavalli-Sforza, L. L., & Cavalli-Sforza, F. (1995). *The great human diasporas: The history of diversity and evolution*. Reading, MA: Perseus Books.
- Cohen, D., & Nisbett, R. E. (1994). Self-protection, insults and the culture of honor: Explaining southern homicide. *Personality and Social Psychology Bulletin*, 20, 551–567.
- Dalgleish, T., Rosen, K., & Marks, M. (1996). Rhythm and blues: The theory and treatment of seasonal affective disorder. *British Journal of Clinical Psychology*, 35, 163–182.
- Darwin, C. (1872). *The expression of emotion in man and animal*. London: Murray.
- Diener, E., Lucas, R. E., & Scollon, C.-N. (2006). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *American Psychologist*, 61, 305–314.
- Durkheim, E. (1895/1962). *The rules of the sociological method*. Glencoe, IL: Free Press.
- Durkheim, E. (1897). *Le suicide*. Paris: Presses Universitaire de France.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Georgas, J., & Berry, J. W. (1995). An ecocultural taxonomy for cross-cultural psychology. *Cross-Cultural Research*, 29, 121–157.
- Goldstein, J. H., Davis, R. W., & Herman, D. (1975). Escalation of aggression: Experimental studies. *Journal of Personality and Social Psychology*, 31, 162–170.
- Guven, C. (2007). Reversing the question: Does happiness affect individual economic behavior? Mimeo, Houston, TX: University of Houston.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional contagion*. New York: Cambridge University Press.
- Hebb, D. O. (1949). *The organization of behavior*. New York: Wiley.
- Hill, M. A. (1992). Light, circadian rhythms, and mood disorders: A review. *Annals of Clinical Psychiatry*, 4, 131–146.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Huntington, E. (1913). Changes of climate and history. *The American Historical Review*, 18, 213–232.
- Isen, A. M., & Patrick, R. (1983). The effect of positive feelings on risk taking: When the chips are down. *Organizational Behavior and Human Decision Processes*, 31, 194–202.
- Kupfermann, I. (1991). Hypothalamus and limbic system: Motivation. In E. R. Kandel, J. H. Schwartz, & T. M. Jessell (Eds.), *Principles of neural science* (3rd ed., pp. 750–760). Norwalk, CT: Appleton & Lange.
- Lambert, G. W., Reid, C., Kaye, D. M., Jennings, G. L., & Esler, J. D. (2002). Effect of sunlight and season on serotonin turnover in the brain. *The Lancet*, 360, 1840–1842.
- László, E., & Masulli, I. (1993). *The evolution of cognitive maps: New paradigms for the twenty-first century*. Philadelphia, PA: Gordon and Breach.
- Lester, D. (1970). Completed suicide and latitude. *Psychological Reports*, 27, 818.
- Li, S.-C. (2003). Biocultural orchestration of developmental plasticity across levels: The interplay of biology and culture in shaping the mind and behavior across the life span. *Psychological Bulletin*, 129(2), 171–194.
- Lowie, R. H. (1917/1966). *Culture and ethnology*. New York: Basic Books.
- Magnusson, A. (2000). An overview of epidemiological studies on seasonal affective disorder. *Acta Psychiatrica Scandinavica*, 101, 176–184.
- Montesquieu, C. D. S. (1748/1989). *The spirit of the laws*. Cambridge, UK: Cambridge University Press.
- Murdock, G. P. (1932). The science of culture. *American Anthropologist*, 34, 200–215.
- Murdock, G. P. (1945). The common denominator of cultures. In R. Linton (Ed.), *The science of man in the world crisis* (pp. 123–142). New York: Columbia University Press.

- Norenzayan, A., & Heine, S. J. (2005). Psychological universals: What are they and how can we know? *Psychological Bulletin, 131*, 763–784.
- Panksepp, J. (1986). The neurochemistry of behavior. *Annual Review of Psychology, 37*, 77–107.
- Parker, P. M. (2000). *Physioeconomics: The basis for long-run economic growth*. Cambridge, MA: MIT Press.
- Parker, P. M., & Tavassoli, N. T. (2000). Homeostasis and consumer behavior across countries. *International Journal of Research in Marketing, 17*(1), 33–53.
- Pennebaker, J. W., Rimé, B., & Blankenship, V. E. (1996). Stereotypes of emotional expressiveness of northerners and southerners: A cross-cultural test of Montesquieu's hypotheses. *Journal of Personality and Social Psychology, 70*, 372–380.
- Raghunathan, R., & Pham, M. T. (1999). All negative moods are not equal: Motivational influences of anxiety and sadness on decision making. *Organizational Behavior and Human Decision Processes, 79*, 56–77.
- Roberts, J. E. (1995). Visible light induced changes in the immune response through an eye-brain mechanism (photoneuroimmunology). *Journal of Photochemistry and Photobiology B: Biology, 29*, 3–15.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In Zanna, M. (Ed.), *Advances in experimental social psychology* (pp. 1–65). Orlando, FL: Academic.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology, 45*, 513–523.
- Scitovsky, T. (1992). *The joyless economy: The psychology of human satisfaction* (revised edition). New York: Oxford University Press.
- Spoont, M. R., Depue, R. A., Krauss, S. S. (1991). Dimensional measurement of seasonal variation in mood and behavior. *Psychiatry Research, 39*, 269–284.
- Steenkamp, J-B. E. M., & Burgess, M. (2002). Optimum stimulation level and exploratory consumer behavior in an emerging consumer market. *International Journal of Research in Marketing, 19*, 131–150.
- Steenkamp, J-B. E. M., ter Hofstede, F., & Wedel, M. (1999). A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness. *Journal of Marketing, 63* (2), 55–69.
- Suh, E., Diener E., Oishi, S. & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology, 74*, 482–93.
- Thayer, R. E. (1989). *The biopsychology of mood and arousal*. New York: Oxford University Press.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Van de Vliert, E. (2007). Climates create cultures. *Social and Personality Psychology Compass, 1*(1), 53–67.
- Van de Vliert , E., Huang, X. & Parker, P. M. (2004), Do colder and hotter climates make richer societies more, but poorer societies less, happy and altruistic? *Journal of Environmental Psychology, 24* (1), 17–30.
- Van de Vliert, E., Schwartz, S. H., Huismans, S. E., Hofstede, G., & Daan, S. (1999). Temperature, cultural masculinity, and domestic political violence: A cross-national study. *Journal of Cross-Cultural Psychology, 30*, 291–314.
- van Praag, H. M. (1982). Depression, suicide, and the metabolism of serotonin in the brain. *Journal of Affective Disorders, 4*, 275–290.
- Wise, R. A. (1987). The role of reward pathways in the development of drug dependence. *Pharmacological Therapy, 35*(1–2), 227–263.
- Wundt, W. M. (1893). *Grundzüge der physiologischen Psychologie*, Leipzig, Germany: Engelmann.
- Yerkes, R. M., & Dodson, J.D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative and Neurological Psychology, 18*, 459–482.
- Zajonc, R. B. (1994). Emotional expression and temperature modulation. In S. H. M. van Goozen, N. E. van de Poll, & J. A. Sergeant (Eds.), *Emotions: Essays on emotion theory* (pp. 3–27). Hillsdale, NJ: Erlbaum.
- Zuckerman, M. (1994). *Behavioral expressions and biosocial bases of sensation seeking*. New York: Cambridge University Press.

12 The Mutual Constitution of Residential Mobility and Individualism

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In this chapter, we examine a key theoretical question concerning the cultural evolution of individualism and collectivism, namely, how individualism and collectivism emerged in the first place. From a socio-ecological perspective, we propose that (a) residential mobility tends to give rise to an individualistic ethos, and (b) this ethos, once established, creates a social system that perpetuates the mobility that produced it. We will first review the defining characteristics of individualism-collectivism and present historical foundations for individualism and collectivism. Then, we will review empirical evidence that supports our thesis that residential mobility plays an important role in the development of an individualistic ethos. Finally, we will discuss other factors that might contribute to the cultural evolution of individualism and collectivism. The central goals of this chapter are to provide a fresh, new perspective on individualism and collectivism and to encourage researchers to investigate socio-ecological conditions in the context of cross-societal comparisons (see Yamagishi, 1998, for a similar view).

Two related constructs, individualism-collectivism (Hofstede, 1980; Triandis, 1995) and independent and interdependent self (Markus & Kitayama, 1991), have provided powerful frameworks to understand cross-national variations in the self-concept, interpersonal relationships, and various other social behaviors for the last two decades (see Kağıtçıbaşı & Berry, 1989; Kitayama & Cohen, 2007; Markus & Kitayama, 2003 for review). However, these constructs have also been criticized on various grounds, ranging from the lack of support from self-reported individualism-collectivism scores (e.g., Matsumoto, 1999; Oyserman, Coon, & Klemmemeier, 2002; see, however, Schimmack, Oishi, & Diener, 2005 for empirical support), conceptual ambiguity (e.g., Schwartz, 1990), and the existence of various subtypes (e.g., Briley & Wyer, 2001; Brewer & Chen, 2007; Kağıtçıbaşı, 2005). Many prominent researchers in the field have urged that alternative conceptual frameworks and methodologies should be adopted in cultural and cross-cultural psychology (e.g. Bond, 2002; Fiske, 2002; Kitayama, 2002; Miller, 2002; Oyserman et al., 2002; Shavitt, Lalwani, Zhang, & Torelli, 2006).

We wholeheartedly agree that culture is not a stable trait and that different situations instantiate different sets of ideas and norms (e.g., Hong & Chiu, 2001; Oishi, Wyer, & Colcombe, 2000; Schwarz, 2006). We also agree that it is wise to investigate cultural phenomena in terms of various theoretical dimensions (e.g., hierarchy, achievement motivation, novelty seeking) using diverse methods (e.g., analysis of media, books, songs, laws; Cohen, 1996; Han & Shavitt, 1994; Tsai, Miao, & Seppala, 2007). However, we also believe that the constructs of individualism-collectivism and independent and interdependent self will continue to play a central role in cross-cultural and cultural psychology. When measured or manipulated precisely, they are fundamental dimensions that account for cultural diversities in a wide range of social behaviors. The recent decline in popularity of individualism and collectivism in cultural and cross-cultural psychology seems to us to be due in large part to the (mis)perception that individualism and collectivism provide only a superficial explanation for cross-national differences or, even worse, do not provide any explanation at all. We will redress this critique by demonstrating that residential mobility delineates a concrete

mechanism underlying an individualistic ethos that captures not only cross-national variations but also within-nation, regional variations, as well as individual differences in the self, relationships, and social behaviors.

WHAT IS INDIVIDUALISM?

One of the first conceptualizations of individualism accorded priority to individual goals over group goals (Triandis, 1989). This worldview features the individual as a self-contained entity with a well-defined self-other boundary (Markus & Kitayama, 1991). Personal goals are defining characteristics of this autonomous entity and may lie in opposition to the social world. In such cultures, importance is placed on Emersonian self-reliance (Kitayama, Ishii, Imada, Takemura, & Ramaswamy, 2006; Snibbe & Markus, 2005), personal cultivation (Markus & Kitayama, 1991; Maslow, 1971), personal choice (Iyengar & Lepper, 1999), and uniqueness and self-expression (Kim & Markus, 1999). Although each of these characteristics seems to represent the latent “factor” of individualism, Oyserman et al. (2002) showed that these components do not necessarily form one global factor and that the concept of individualism is multidimensional (see also Rhee, Uleman, & Lee, 1996).

Consistent with the multidimensional view, Triandis (1995) distinguished *horizontal* individualism, which is characterized by the importance attached placed on one's uniqueness and autonomy, from *vertical* individualism, which is characterized by an emphasis on competition and personal accomplishment. Similarly, Waterman (1981) distinguished normative individualism, in which the pursuit of self-interest is often beneficial both to individuals and to society (what Alexis de Tocqueville [1835/2003] called “the doctrine of self-interest properly understood”), from rugged individualism, which features the image of the individual against society (see also Sampson's [1988] ensembled individualism, whose core values are freedom, responsibility, and achievement).

The emphasis on the development and expression of one's unique, “true” self constitutes a cornerstone of the formation and experience of friendship in individualistic societies (Bellah et al. 1985). According to most forms of individualism described above, friendship involves the meeting of two distinct and fundamentally separate beings, whose connection must be created (Adams & Plaut, 2003) via a mutual sharing of unique and authentic selves and/or common interests. This is what Bellah et al. (1985) call *expressive individualism*. Romantic companionship should also be a celebration and exploration of exciting and unique traits in this context. With different friends reserved for the sharing of specific interests, friendships in such societies also become more compartmentalized (e.g., my tennis friend, my music friend, my movie friend; Snyder, Gangstad, & Simpson, 1983).

True individualist friendship, like the true self, should be genuine and spontaneous. Friendships should feature spontaneous (read *genuine*) acts of affection, should not arise out of obligation, and may involve but should not be predicated on practical or material support (Adams & Plaut, 2003). Friendships have varying degrees of intimacy, and those that require self-censorship or too much obligation can easily be deemphasized or even left (Triandis, 1989). This ideal is reflected in the high American divorce rates. Indeed, Dion and Dion (2005) found that Americans showed a permissive, noncommittal view of love.

Relationships with groups and associations also reflect the above model of low-cost, low-commitment, personally expressive relationships. Groups in individualist cultures are more permeable. That is, they are easy to join and leave, requiring little obligation (e.g., book club). With high inter-group mobility, there are many potential in-groups, and it is relatively easy to stay with those that meet one's personal needs and leave those that do not (Oishi & Ishii, 2007; Triandis, 1989). Inter-group mobility is supported by Americans' high level of general trust in others, and this facilitates social exploration and friendship making (Yamagishi, Cook, & Watabe, 1998).

In addition to particular views toward friendships and groups, individualism in North America has been associated with specific emotional experiences. For example, pride, a socially disengaging emotion (Kitayama, Markus & Kurokawa, 2000), clearly sets the self apart from surrounding others.

For Americans, positive emotions are desired, regardless of whether they are socially engaging or disengaging. This is not the case among Japanese, because pride signals a disruption in harmony with others (Kitayama et al., 2000).

The North American ethos of individualism is liberating to the individual, but it is also associated with anxiety and identity crises. Twenge (2000) found in the U.S., for instance, that the increased personal freedom to choose one's occupation, spouse, and system of values over the last 50 years also accompanied an increased level of anxiety, and referred to the age of the "me" generation as an "age of anxiety." Schwartz (2004) has similarly argued that young Americans report experiencing significant pressures to actualize their potentials and define their identities and are plagued by the impending fears and guilt of failing to choose the most optimal opportunities available to them. In this sense, the personal autonomy and independence that is central to American individualism has its downsides.

WHAT IS COLLECTIVISM?

As there are many forms of individualism, so there are also varieties of collectivism (Triandis, 2005). For instance, vertical collectivism emphasizes hierarchy and conformity, whereas horizontal collectivism emphasizes interdependence and relatedness (Triandis, 1995). Recently, Brewer and Chen (2007) distinguished relational collectivism from group collectivism, much like the analogous distinction between the relational self and collective self (see also Yuki, 2003). Oyserman et al. (2002) further differentiated eight components of collectivism (relatedness, group belonging, duty, harmony, seeking advice from others, contextualization, hierarchy, and preference for group work).

In relational collectivism, relationships are the self's defining features, and either personal goals are deemphasized in favor of interdependent goals or no distinction between individual and significant other's goals is made (Brewer & Chen, 2007). Similarly, in group collectivism, the fluidity of the self in its relationship to the group at large is expressed in the sense of sharing a common fate with other group members and in the belief that the experience of one in-group member affects all of that group's members (Brewer & Chen, 2007). The fluidity of the self may also manifest in the sharing of material resources: a tribe's catch can be distributed and shared among its members; a dish bought at a restaurant can be distributed among those at the table.

Instead of striving explicitly to actualize a "true" self, collectivist individuals strive to cultivate and maintain deep bonds with significant others and/or important in-group members. This involves maintaining harmony and adjusting to others' (or the group's) needs (Argyle, Henderson, Bond, Iizuka, & Contarello, 1986; Heine, 2001), which in turn affects the type of emotions idealized (Tsai, Knutson, & Fung, 2006) and experienced (Kitayama et al., 2000; Mesquita & Karasawa, 2002). Because harmony is emphasized, similarity rather than uniqueness is valued. The private self—its desires, opinions, inclinations, and so forth—may be kept cleanly separate from and seen as irrelevant to public interactions, as it is in Japan (see Doi, 1986, for his discussion of the private self [*hone*] and the public self [*tatemae*] in Japan).

An important part of fitting in and maintaining harmony consists of role fulfillment, classically exemplified by the elaborate Confucian system of etiquette. Under this system, harmony within five cardinal relationships is emphasized: father-son, husband-wife, elder-younger, emperor-subject, and friend-friend. Maintaining harmony in these relationships involves duty, deference to authority, and knowing one's place (Heine, 2001). Such relationships are deeply involving, and authority takes on a nurturing, parental aspect (Triandis, 1989). An individual's roles within their core relationships are clearly defined, and the ability to flexibly adapt one's behavior to match the social context is a mark of maturity and a major focus in Japanese schools (Heine, 2001). Such clear definition of roles may lead to role perfectionism and self-criticism (Heine, Lehman, Markus, & Kitayama, 1999).

The context-dependent nature of the self is apparent here. While an individualist might make a context-independent claim such as, "I am hard-working," a collectivist might say, "As a scholar I am diligent, but as a parent I am negligent" (Markus & Kitayama, 1998; Suh, 2002). The self in

collectivist societies is experienced as part of a network of social roles and obligations, and friendship is no exception. Opportunities to create friendships tend to be fewer in collectivist societies, as they are created based on pre-existing networks. In fact, Adams and Plaut (2003) have suggested that friendships are not “created” so much as “given” in collectivist societies such as Ghana. In contrast to individualist cultures, where it is more common and desirable to have many friends with varied levels of personal intimacy, friendships in collectivist cultures tend to be more binding with a variety of obligations. The depth and obligation of collectivist friendship also limits the sheer number of friends one can maintain. In fact, Adams and Plaut found that in Ghana, most people view having many friends as “foolish” or naïve, given the impossible level of commitment and strain that they place on one’s resources.

As indicated above, collectivist groups tend to be less permeable: they are difficult to freely enter and exit. As people’s social ties are relatively set, social goals focus on maintaining the relationships one already has instead of forming new relationships (Wheeler, Reis, & Bond, 1989). Consequently, compared to East Asians, North Americans tend to make a smaller distinction between members of one’s in-group and strangers (Iyengar, Lepper, & Ross, 1999), because strangers are potentially future friends. In addition, unlike America’s high level of general trust, Japanese strongly trust their in-group members but also distrust out-group members (Yamagishi et al., 1998). Individualists also tend to be more skilled at interacting with strangers than collectivists are, who experience less opportunity or need to do so (Triandis, 1989).

HISTORICAL FOUNDATIONS OF INDIVIDUALISM AND COLLECTIVISM

The orientations associated with the various forms of individualism and collectivism arise as successful strategies in particular environments (Triandis, 1989). What environments foster self-restraint and a focused attention and adaptation to the needs and desires of others (Markus and Kitayama, 1991)? What kinds of environments foster independent people who value self-expression, self-reliance, and personal goals? A few case studies illustrate socio-ecological sources of individualism and collectivism. One prominent comparison in explaining these variations is that between ancient China and Greece. These cultures had vastly different social, ecological, occupational environments, all of which influence—but do not determine—the thinking habits, beliefs, and goals discussed above, which in turn reinforce the socio-ecological environments.

China’s fertile plains and low mountains facilitated a livelihood that has historically been agricultural. Family farmers in the Yellow River valley relied on an irrigation system, which was controlled by a centralized government composed of regional magistrates and village elders (see Huang, 1997 for a more complete view). Nisbett (2003) argued that the social pressures and obligations that supported the livelihood of these subsistence farmers in this environment shaped their attentional processes. A family’s means to betterment or ruin was primarily dependent on social forces that chronically drew one’s focus of attention outward to the social environment rather than cultivating one’s abstract inner potentialities. Residential mobility was practically impossible unless a family member passed the state exam to become a magistrate. In this agricultural configuration, conflict avoidance and social sensitivity are adaptive. Even private decisions about the family harvest are public, requiring consultation of those sharing the same irrigation system. Other agricultural activities such as the storing of produce required high levels of cooperation, such that individuals probably experienced a strong sense of collective agency rather than personal agency. Such a sharing of material and human resources creates a sense—and indeed a concrete reality—of being part of a web of obligations and interdependence.

Ancient Greece serves as a model of an ecology that favors individualism. In contrast to China’s landscape promoting agriculture, ancient Greece was a mountainous landscape that facilitated fishing, herding, hunting, and trade. Nisbett (2003) argued that these occupations, in addition to factors like intercultural exposure through trade and the high mobility provided by the city-state, played an important role in developing a view of the individual as independent and autonomous.

Greece's location and function as a major trading outpost significantly facilitated its individualistic worldview. It was regularly exposed to the norms and beliefs of outside cultures, exposure that Triandis (1989) argued fosters individualism. The perception of multiple contradicting norms, customs, and habits, he argued, causes people to look inward in deciding what to believe. The confluence of cultures and sometimes incompatible customs also requires, as Nisbett (2003) suggested, a system for working out the inevitable disagreements. Out of this ecology arose the art of debate and argumentation, which enabled the Greeks to confront interpersonal problems. In this society, avoiding confrontation would have been maladaptive. Rather, building the skill to successfully refute an opponent in a verbal match (i.e., skilled self-expression) would have been adaptive.

Moreover, if confrontation did arise, a family earning its living from occupations such as hunting and trading could simply move somewhere else. The city-state connected Greek settlements to each other, and united by a common language, a Greek family whose professional assets were mobile could relocate much more easily than could a family who was dedicated to the land. This is very similar to occupational mobility in America today, in which mobile assets (one's personal skills and creativity) allow an array of choices as to where to live and which occupation to pursue (Florida, 2002).

The sources of individualism and collectivism can also be distilled from historical changes in social conditions. Baumeister (1986, 1987) provides a particularly informative sociohistorical account of Western Europe's transition toward its modern individualist orientation from its agricultural, collectivist roots between 1500 and 1800. In medieval Europe, occupations and social rank were fixed and seen as legitimate, as they were believed to be ordained by God and society. Like ancient China, social roles and occupations in medieval Europe were not appended to an individual, whose essence somehow existed independently from those roles. These conditions fostered a collectivist worldview, and made the public self (i.e., how others view them) salient.

However, according to Baumeister (1986, 1987), a few important changes occurred starting sometime in the 16th century. First, the Christian faith began to lose its authoritative power as a context by which to frame and understand one's life. Second, social rank and family origin became less and less relevant. This change introduced more fluidity in the social hierarchy, whose legitimacy was previously believed to be divinely established. Third, occupation became more and more a personal choice, although economic opportunities were still quite limited, compared to the U.S. These changes laid groundwork for the emergence and development of an individualistic ethos (e.g., the centrality of the private self over the public self). The gradual move toward greater individualism in England and the U.S. in the 19th and 20th centuries can also be seen in the linguistic analysis by Cohen (2003). He showed that "shame" (the emotion strongly associated with the public self) was more prominent in the 1830s than it is now, as indicated by a decrease over time in the number of words used to describe "shame" relative to "self-esteem," "pride," and "dignity" in Webster's dictionary from 1828 to 2003. In addition, Cohen demonstrated that the use of the word "guilt" (a feeling associated with judgments made by the private self) has become more prominent over the same period of time.

AMERICAN INDIVIDUALISM: THE HISTORY OF MOBILITY AND VOLUNTARY ASSOCIATIONS

The U.S. has long been considered the most individualistic nation in the world (Hofstede, 1980). After all, when the majority of British and other Europeans could not even dream of becoming rich and successful unless they were in the elite class, Americans were able to pursue their own prosperity and happiness regardless of their birth and origin (with the notable exception of slaves, of course). However, this pursuit was not easy. As elegantly expressed by Kitayama et al. (2006), frontier life was often harsh and required a great deal of self-determination, self-directedness, and strong goal-orientation. This frontier spirit formed a cornerstone of American individualism.

Frontier spirit also manifests itself as restlessness and residential mobility. For instance, when the French aristocrat Alexis de Tocqueville (1835/2003) visited the 17 of the then -20 states in the U.S. in 1831, he was amazed by many Americans' relentless pursuit of prosperity, as follows:

In the United States, a man will carefully construct a home in which to spend his old age and sell it before the roof is on; he will plant a garden and will rent it out just as he was about to enjoy its fruit; he will clear a field and leave others to reap the harvest. He will take up a profession and then give it up. He will settle in one place only to go off elsewhere shortly afterwards with a new set of desires. (p. 623)

That is, Americans have long been able to pursue economic self-interest because of America's unique social and physical conditions at that time: namely, abundant natural resources, relatively sparse population, and egalitarian class structure.

Although frontier spirit emphasizes self-reliance and self-determination, American individualism does not result in social isolation. Quite contrary, European visitors were amazed with many Americans' sociability. For example, Tocqueville (1835/2003) observed, "Americans of all ages, conditions, and all dispositions constantly unite together. Not only do they have commercial and industrial associations to which all belong but also a thousand other kinds, religious, moral, serious, futile, very general and very specialized, large and small, Americans group together to hold fetes, found seminaries, build inns, construct churches, distribute books, dispatch missionaries to the antipodes" (p. 596). Americans formed different kinds of social relationships than Europeans, due in part to the U.S.'s then-unique social class structure (lack of rigid social class division) and social conditions (e.g., geographical mobility). In sum, American pioneers cultivated not only new lands but also new social networks, freely and by their own initiative.

In the 18th and 19th centuries when the U.S. was expanding westward, residential mobility was extremely high. While noting the enormous difficulty of estimating residential mobility in early U.S. history, the sociologist Claude Fischer (2002) estimates that residential mobility of the 19th century was as much as twice greater than that of the late 20th century. This means that roughly 40 percent of the population was changing their residence in any given year! The 19th century hyper-mobility was closely associated with the expansion of the U.S. territory to the West, in particular the Gold Rush and other economic opportunities. Furthermore, the American industrial revolution of late 19th and early 20th centuries created large metropolitan cities, where an unprecedented wave of immigrants arrived from around the world.

After the two world wars, however, the United States experienced an enormous economic prosperity, and the society saw a period of stability. Residential mobility by this time was around 20 percent per year (Fischer, 2002), and middle-class suburbs were created with greater availability of automobiles and highways. World War II and the subsequent Cold War made Germany, Japan, and the Soviet Union "common enemies" among Americans and helped unite America. Interestingly, the 1950s were also generally considered an era of "conformity," as exemplified by the political pressure to be anti-communist (e.g., Erik Erikson left the University of California, Berkeley, in 1950 because professors there were asked to sign loyalty oaths) and the organizational pressure to be an "organization man." William Whyte (1956) observed, "When a young man says that to make a living these days you must do what somebody else wants you to do, he states it not only as a fact of life that must be accepted but as an inherently good proposition" (p. 6). Considering that these organization men were the dominant members of America in the 1950s, it was an exceptionally anti-individualistic era at least by American standards. Social scientists such as Robert Putnam (2000) also described the post-World War II era as the era of deep social relations among Americans, during which many Americans joined groups (e.g., bowling leagues, the PTA) and actively engaged in civic affairs. Thus, not only was conformity widely accepted during the 1950s, but Americans during this period were also more civic-minded and concerned about their communities and society at large (see also Brokaw's [1998] *The Greatest Generation*).

The strong emphasis on conformity during the 1950s could be due in part to the economic structure that emphasized organizational stability. Large corporations boasted their paternalistic relationship with their employees. For instance, IBM famously maintained a “full employment” policy, where employees would never be laid off. In the 1950s, organization men were supposed to sacrifice their family time for their organizations, but instead the organization provided the security for the individual. As Pink (2001) articulates in his *Free Agent Nation*, it was the loyalty-for-security contract between the organization and individuals that was central to the organization man’s values and self-concept. However, because of the rising competition from smaller startup companies and foreign companies, IBM was forced to give up the full employment policy in the early 1990s. As the paternalistic policies from many corporations faded, “organization men” disappeared quickly from American workers as well. Thus, Pink declares the current U.S. a “free agent nation,” where many Americans work as freelancers (broadly defined).

Similarly, the economist Richard Florida (2002) describes the social and cultural transformation that transpired during the second half of the 20th century in the U.S., along with the economic transformation, as follows:

In virtually every aspect of life, weak ties have replaced the stronger bonds that once gave structure to society. Rather than live in one town for decades, we now move about. Instead of communities defined by close associations and deep commitments to family, friends and organizations, we seek places where we can make friends and acquaintances easily and live quasi-anonymous lives. The decline in the strength of our ties to people and institutions is a product of the increasing number of ties we have. As a retired industrialist who was the head of a technology transfer center in Ottawa, Canada, told me: “My father grew up in a small town and worked for the same company. He knew the same fourteen people in his entire life. I meet more people than that in any given day. (p. 7)

As loyalty for a particular organization disappeared (i.e., as occupational mobility increased), an individual’s relationship with others changed as well, shifting from a preference for a small circle of deep friendships to a preference for a large group of more casual friends. Again, this shift does not imply that social relationships are no longer important for Americans. They obviously are. However, many Americans, especially those who belong to the “creative class” (those who engage in arts, architecture, software development, academics, and other professions that require creativity), try to structure their social lives such that they can spend their time most efficiently and flexibly (namely, so that they can maximize their time on their professional and creative outputs). In other words, many people prefer to spend time with their friends when they want to, and they do not want to have obligatory relationships that prevent them from using their time flexibly.

Just as Americans in the mid-19th century formed various voluntary associations to gain political power and build social networks, the 21st century “free agents” (self-employed individuals) are forming many voluntary mutual help groups (Pink, 2001, chap. 7 & 8). In a sense, therefore, the age of “organization man” was an exceptional period in American history. Throughout the rest of the American history, many Americans have been “free agents,” working for themselves and cultivating a large, weakly connected social network.

EMPIRICAL EVIDENCE FOR THE SOCIO-ECOLOGICAL MODEL OF THE SELF AND SOCIAL BEHAVIORS

As seen above, the history of the U.S. is quite different from that of many other nations in the world. For Americans, the “on the go” mentality and willingness to relocate for better economic and social opportunities seem to be deeply rooted (Van Minnen & Hilton, 2002). It is interesting, for instance, that one of the main reasons for Wal-Mart’s unexpected failure in Germany, after nearly a decade of attempting business there, was German executives’ unwillingness to move to other parts of Germany. Landler and Barbaro (2006) reported in the *New York Times* as follows:

Compounding the problem, Wal-Mart shut down the headquarters of one of the chains, infuriating employees who opted to quit rather than move. Such a decision would have been routine in the United States, where Ms. Keck said, “moving is a big part of the Wal-Mart culture.” In Germany, she said, it prompted an exodus of talented executives.

As such, there are interesting cultural variations along with the dimension of residential mobility, even within “Western” nations. In addition, there are regional differences in residential mobility within any nation. For instance, Pittsburgh and Philadelphia have been residentially stable, whereas many cities in the South and Southwest are mobile (Oishi, Rothman, et al., 2007; Schmitt, 2001). Finally, there are marked individual differences in the history of residential mobility, such as how often individuals move while growing up. We believe that residential mobility provides an interesting angle through which we can understand the self-concept and social relations at multiple levels of analysis.

My colleagues and I have recently developed the socio-ecological model of the self and social behaviors based on a simple idea that residential mobility should give rise to an individualistic way of defining the self and relating with others and communities (Oishi & Ishii, 2007; Oishi, Lun, & Sherman, 2007; Oishi, Rothman, et al., 2007). According to this model, the stability of individuals’ social environment shapes the ways in which they organize their self-concepts. When children and adolescents move several times during their short lives, they are asked to form a new set of friends and join a new group every few years. This can disrupt their social environment and routines (e.g., Adam, 2004). Meanwhile, their personal identities (e.g., “good at math”) are less susceptible to this change in social environment. Consequently, given the transient nature of group membership and affiliation among frequent movers, it is conceivable that, over time, these children come to base their identity more and more on their enduring skills, abilities, and traits rather than on their ever-changing roles, memberships, and upbringing. For instance, an adolescent soccer player who moves frequently may begin to view herself primarily as a good soccer player rather than as a member of any particular local team; she knows that while team membership can only last as long as she stays in the area, her skills will remain constant, regardless of where she lives. Therefore, we hypothesize that residential mobility is associated with increased importance of the personal self but decreased importance of the collective self.

The hypothesized link between the personal history of residential mobility and relative centrality of the personal versus the collective self is consistent with relevant work in cross-cultural psychology. For instance, Kashima et al. (2004) found that people living in metropolitan cities regarded their personal self as more important than did their counterparts in regional cities, where residential mobility is presumably lower than it is in metropolitan cities (but see Vandello & Cohen, 1999). Likewise, Cousins (1989) found that Americans who live in a high-mobility society used personality traits to define who they are more often than did Japanese who live in a low-mobility society. In sum, individuals who move more frequently should place greater importance on the personal self, whereas individuals who move relatively less should place greater importance on the collective self because of stable social ties. Indeed, this is what we found (Oishi, Lun, & Sherman, 2007, Study 1).

RESIDENTIAL MOBILITY AND INTERPERSONAL PROCESS

Because residential mobility pertains to the self-concept, we also predict that personal history of residential mobility should guide one’s happiness in social interactions. Influential theories and research on the self and social relationships have demonstrated that individuals gravitate toward, and feel closer to, those who verify their self-views (see Swann, Rentfrow, & Guinn, 2003, for review). Moreover, people tend to seek verification of self-views that are considered to be important and central to the self (Chen, Chen, & Shaw, 2004). Finally, people feel intimacy and form a close relationship when their partner responds to the central aspects of the self (Reis, Clark, & Holmes, 2004). This body of research and theory suggests that individuals particularly enjoy social

interactions in which the central aspects of the self are perceived accurately. Integrating this view into our model, we hypothesize that during social interaction, frequent movers should feel positive when their personality, skills, and abilities (i.e., personal selves) are perceived accurately by an interaction partner. In contrast, these individuals feel no more positively when their upbringing and important group memberships (i.e., collective selves) are accurately perceived than when they are not. Conversely, nonmovers should feel relatively more positive when their upbringing and important group memberships are accurately perceived, but should not feel particularly positive when their personal self is accurately understood.

We found support for our hypothesis both in a laboratory interaction study and an event-sampling study (in which participants carried a personal digital assistance and recorded their social interactions and their moods after each social interaction). Namely, frequent movers felt happier than nonmovers when their interaction partner accurately perceived their personal self, whereas nonmovers felt happier than movers when their interaction partner accurately perceived their collective self (Oishi, Lun, & Sherman, 2007, Studies 2 & 3). We (Oishi, Koo, & Akimoto, 2008) found parallel results at the level of cultural groups. Using virtually identical laboratory tasks and event-sampling methods, we found that on average European Americans felt happier than Asian Americans when their interaction partner understood their personal self accurately. In contrast, Asian Americans (like nonmovers in Oishi et al's 2007 study) felt happy when their collective self was accurately perceived. These results suggest that cultural differences might be in part due to historical differences in residential mobility between European Americans and Asian Americans, whose ancestors came mainly from residentially stable nations.

RESIDENTIAL MOBILITY AND PRO-COMMUNITY BEHAVIORS

In addition to interpersonal processes, we theorize that residential mobility affects one's relationship with groups and the community at large. The central tenet of our model is that socio-ecological factors such as residential stability have an impact on the degree to which residents take action for the sake of their community. We postulate that residential mobility is associated with lower levels of pro-community action, and that this link is mediated by the lack of interdependence among residents, decreased importance of reputation, and decreased identity as a community resident.

The well-being of our ancestors was in large part dependent on the well-being of the community, because individuals and society were connected through obligatory interdependence (Brewer & Caporael, 2006). When the community prospered (e.g., good economy, peace with neighboring communities), residents' lives were good; but when misfortune befell the community (e.g., war, economic depression), most of the residents suffered as well. If residents simply abandoned the community and moved to a more desirable community when misfortune erupted, the unfortunate community would not survive. Without the community, leavers were unlikely to survive. Historically, therefore, an individual's well-being was often dependent upon a community's well-being, and this interdependence was particularly strong in a stable society in which leaving an old group and joining a new group is not very easy (e.g., Italian mafia or Japanese *yakuza*). This interdependence, in turn, should give rise to members' loyalty toward the community.

In addition, residential stability should also be associated with heightened concern with reputation. When residents have no other choice but to live in their current community, their well-being would be closely linked to their reputation. After all, a negative reputation can lead to ostracism (Williams, 2001). Anthropologists have documented that residents in a stable community pay close attention to the frequency with which they give or receive favors (e.g., Price, 2003). One consequence of this social structure is that residents' public self (how others view them) and collective self (the self defined by group membership) is likely to be more central and chronically accessible than is their private self (how they feel and what they want; Baumeister, 1986, 1987; Triandis, 1989).

Residential stability of the community should also influence the formation of local friendships and psychological attachment to the community. Kasarda and Janowitz (1974) indeed found that

length of residence was positively associated with local friendships and psychological attachment to community. Sampson (1991) extended these findings by showing that individuals' local friendship ties were predicted not only by individuals' length of residence but also by the average residential stability measured at the community level. Specifically, residents in a stable community had more friends in the neighborhood than did residents in a mobile community, even if they themselves had lived there for only a short period of time. Likewise, Kang and Kwak (2003) found in a survey of residents of Madison, Wisconsin, that both the length of residence in the current community and residential stability of the community predicted residents' self-reported civic participation (e.g., talking about the community's needs, working to bring about changes in the community).

In one study (Oishi, Rothman, et al., 2007, Study 1), we determined which Minnesota residents purchased a "critical habitat" license plate (a license that require an extra fee that is used to support the preservation of natural habitats in the state). As expected, Minnesotans living in stable communities purchased a "critical habitat" license plate more frequently than did those living in mobile communities. In another study (Oishi, Rothman, et al., 2007, Study 2), we demonstrated that residents in stable cities (e.g., Pittsburgh, Philadelphia) were more loyal to their local baseball team than those in mobile cities (e.g., Phoenix, Atlanta, Denver). For example, residents in stable cities attended home games regardless of the team's current record, whereas residents in mobile cities attended home games only when the team was performing well. Finally, in an experimental study in which residential mobility was manipulated, we found that members of a stable group identified themselves more strongly with the group than did members of a mobile group. In short, residents of a stable community are more likely to be loyal to the community than residents of a mobile community. Although residential mobility presents an enormous opportunity to individuals, it can have a detrimental effect on the community at large (e.g., Sampson, Morenoff, & Earls, 1999).

OTHER THEORETICAL CONSIDERATIONS

The preceding sections highlight that residential mobility has been a defining characteristic of American individualism and that residential mobility has important implications for the self and social relations in general. As discussed above, however, American individualism has experienced some ebb and flow, and specific forms of American individualism have changed over time, with shifting economic structure and conditions. As articulated by Cohen's (2001) game theory of cultural variation, the link between ecology and culture is not always straightforward. The same ecology can give rise to different cultures, whereas different ecologies can give rise to similar cultures. We believe that although residential mobility provides an important influence on an individualistic ethos, this effect is not deterministic. Intermediate structures, such as economic institutions and family structures, can moderate the link between residential mobility and psyche. Also, as Cohen argues, pre-existing cultural history provides a filter through which some aspects of residential mobility effects are selected.

As articulated by the historian Ray Huang (1997), different types of economic systems can emerge in different meteorographical regions, and climate is a critical factor that affects the residential mobility of individuals. In addition, the relationships with neighboring societies (e.g., whether surrounded by a powerful kingdom, an aggressive nomadic tribe, or a relatively peaceful farming community) can affect profoundly the types of social institutions and culture that emerge in respective regions. To fully understand the origin of cultural variation, it is important to consider larger factors, ranging from climate to geopolitical conditions of any given society.

As research on social ecology matures, the model should incorporate more complexity. For instance, we assumed that residential mobility would result in the decreased importance of the collective self. However, in a society where residential mobility does not entail changes in group memberships (e.g., moving from a Tokyo branch to an Osaka branch of the same company), residential mobility should not automatically reduce the centrality of the collective self. Such a context could indeed increase the centrality of the collective self (military families might be similar in this

regard). The presumed effect of residential mobility on the self is mediated by changes in social network (see Yuki's [2003] work on relational mobility, which focuses on the mobility of social network). Thus, the effect of residential mobility could be nullified or intensified, depending on the degree of change in the social network that is caused by residential moves.

Cohen (1998) has already shown the complexity of the link between social ecology and psychology in his research on the culture of honor. He found, for instance, that stability in social organizations (e.g., cohesive communities) was *negatively* associated with honor-related homicides in the northern U.S., whereas it was *positively* associated with honor-related homicides in the South. In a sense, then, residential stability might be reinforcing the pre-existing cultural values (e.g., the culture of honor in the South). In other words, residential stability might simply ensure the maintenance of the existing culture, whereas residential mobility encourages changes. The outcomes of residential mobility should consequently vary, depending on the existing cultural traditions.

Another example of the importance of history over ecology comes from the economist Masahiko Aoki's (2001) comparative institutional analysis from evolutionary game theory. Aoki, like Cohen (2001), argues that different equilibria can be obtained even in two societies with similar ecologies, depending on institutional structure and history. For instance, Aoki compared the 18th century rural villagers' collective solution to a common problem, namely, maintaining an irrigation system for rice farmers in Japan and Korea. Although rural Japan and Korea had almost identical ecologies, their social structures were quite different. Whereas rural Japan in the 18th century was inhabited almost exclusively by small-scale farmers and was therefore free of class conflict within the village, rural Korea in the 18th century consisted of three distinct social groups, specifically *yanban* (an aristocratic class sent by the central Yi government), farmers, and *nobi* (or slaves for *yanban*). Because the construction of reservoirs requires large-scale labor inputs, construction is successful only when residents cooperate with one another. Aoki demonstrated that in the 18th century, there were more irrigation systems in Japan than in Korea. This was because the more egalitarian structure of rural Japan was more conducive to cooperative projects such as constructing an irrigation system than was the highly hierarchical social structure of 18th century rural Korea. This example shows that residential stability leads to cooperation and pro-community action when there are no class disparities, whereas residential stability alone is not sufficient to generate pro-community action.

Finally, the effect of residential mobility/stability on pro-community action appears to be moderated by the wealth of the community, as well. For instance, the re-analysis of Oishi, Rothman et al. (2007, Study 1) showed that the link between residential stability and the purchase of a "critical habitat" license plate was significantly stronger in poor neighborhoods than in wealthy neighborhoods. Namely, there was a great degree of support for the critical habitat, even in residentially mobile neighborhoods, as long as the neighborhood was wealthy. However, there was support for the critical habitat among poor neighborhoods only if they were residentially stable. In other words, residential stability seems to serve as social capital in neighborhoods without much economic capital.

In short, the effect of residential mobility/stability on the self and social behaviors is not deterministic. Its effect is likely to be modified or even reversed by existing local history and other factors such as economic well-being and class structure.

REMAINING QUESTIONS/FUTURE DIRECTIONS

Several important questions remain. First, recent research focused on the effect of residential mobility on the self-concept, interpersonal relationships, and pro-social behavior (i.e., the top-down process). Future research should clarify the way in which collections of particular individuals create social systems that afford individuals to move around freely (i.e., the bottom-up process needs to be investigated). For example, the individualistic ethos in the U.S. might have originated in the personality traits of its founders (e.g., recklessness, restlessness, and independence). Kitayama and colleagues' recent work on volunteer settlement in Hokkaido, the northern island of Japan, points to

this possibility (Kitayama et al., 2006). Indeed, Chen, Burton, Greenberger, and Dmitrieva (1996) showed that the distance to which groups of individuals migrated was positively associated with the frequency of long alleles of dopamine receptor (DRD4), which has been implicated in novelty seeking. These authors speculated that “the long alleles of the DRD4 gene were selected by migration because they had adaptive value in migratory societies” (p. 320). It is thus possible that the U.S. and Hokkaido show the cultural ethos of individualism today partly because individuals who immigrated to the U.S. and Hokkaido were more novelty-seeking and energetic than those who did not. To understand fully the mutual construction of residential mobility and psyche, the bottom-up process, whereby the aggregation of sensation seekers creates a culture of residential mobility, should be empirically examined (see Cullum & Harton, 2007; Harton & Bourgeois, 2004, for examples).

Second, at this point we do not know why certain cities are more mobile than others. Specifically, why are cities such as Phoenix, Denver, and Atlanta very mobile, whereas cities such as Pittsburgh, Philadelphia, and New York are relatively stable? The economist Richard Florida (2002) suggests that policies could affect the degree to which cities attract newcomers. For instance, the mayor of Austin during the late 1990's, Kirk Watson, made conscious efforts to maintain vibrant street-level music scenes and diverse ethnic neighborhoods in the city through various tax and social policies. Also, Florida notes that cities such as Austin and Seattle try to preserve the street-level culture, whereas stable but stagnant cities such as Pittsburgh try to preserve high culture (e.g., opera house) and large sports stadiums as main tools for economic revitalization. In short, in addition to the self-selection factors discussed above, top-down factors (e.g., policies) might also account for variability in residential mobility across U.S. cities, and this needs to be examined in depth in the future.

Third, as described above, it will be important to test complex issues (such as moderators) in the effect of residential mobility on psyche. Fourth, work on social networks needs to be integrated into the research on socio-ecological factors, as it is an important mediator linking social ecology with human psyche. Finally, individuals are nested in dyads, groups, and society. Thus, interactions across these multiple levels of social organizations need to be explicitly tested. As suggested by Eliot Smith and colleagues (Smith & Conrey, 2007), agent-based modeling might help increase our understanding on this issue.

CONCLUSION

An important goal of sociology, social psychology, and cultural psychology is to understand how individuals and society “make each other up” (cf. Markus & Kitayama, 1998). Cultural psychologists have made important contributions to this goal, explicating specific ways in which psyche and culture constitute one another (e.g., Kim & Markus, 1999; Tsai, Louie, & Chen, 2007). We believe that residential mobility is another important factor that could explicate such mutual constitution, namely, how the residential mobility of society affects the way individuals typically feel, act, and think and the way these styles of feeling, acting, and thinking create social systems that are either conducive or not conducive to individuals' mobility. More generally, we believe that residential mobility and socio-ecological conditions in general will help explicate the omnipresent yet poorly understood linkage between culture and psyche.

REFERENCES

- Adam, E. K. (2004). Beyond quality: Parental and residential stability and children's adjustment. *Current Directions in Psychological Sciences, 13*, 210–213.
- Adams, G., & Plaut, V. C. (2003). The cultural grounding of personal relationship: Friendship in North American and West African worlds. *Personal Relationships, 10*, 333–347.
- Aoki, M. (2001). *Toward a comparative institutional analysis*. Cambridge, MA: The MIT Press.
- Argyle, M., Henderson, M., Bond, M., Iizuka, Y., & Contarello, A. (1986). Cross-cultural variations in relationship rules. *International Journal of Psychology, 21*, 287–315.

- Baumeister, R. F. (1986). *Identity: Cultural change and the struggle for self*. New York: Oxford University Press.
- Baumeister, R. F. (1987). How the self became a problem: A psychological review of historical research. *Journal of Personality and Social Psychology*, 52, 163–176.
- Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart: Individualism and commitment in American life*. Berkeley, CA: University of California Press.
- Bond, M. H. (2002). Reclaiming the individual from Hofstede's ecological analysis—A 20-year odyssey: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128, 73–77.
- Brewer, M. B., & Caporael, L. R. (2006). An evolutionary perspective on social identity: Revisiting groups. In M. Schaller, J. Simpson, & D. Kenrick (Eds.), *Evolution and social psychology* (pp. 143–161). Madison, CT: Psychosocial Press.
- Brewer, M. B., & Chen, Y-R. (2007). Where (who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Review*, 114, 133–151.
- Briley, D. A., & Wyer, R. S. Jr. (2001). Transitory determinants of values and decisions: The utility (or non-utility) of individualism and collectivism in understanding cultural differences. *Social Cognition*, 19, 197–227.
- Brokaw, T. (1998). *The greatest generation*. New York: Random House.
- Brooks, D. (2001, April). The organization kid. *The Atlantic Monthly*, 287, 40–54.
- Chen, C., Burton, M., Greenberger, E., & Dmitrieva, J. (1996). Population migration and the variation of dopamine D4 receptor (DRD4) allele frequencies around the globe. *Evolution and Human Behavior*, 20, 309–324.
- Chen, S., Chen, K. Y., & Shaw, L. (2004). Self-verification motives at the collective level of self-definition. *Journal of Personality and Social Psychology*, 86, 77–94.
- Cohen, D. (1996). Law, social policy, and violence. *Journal of Personality and Social Psychology*, 70, 961–978.
- Cohen, D. (1998). Culture, social organization, and patterns of violence. *Journal of Personality and Social Psychology*, 75, 408–419.
- Cohen, D. (2001). Cultural variation: Considerations and implications. *Psychological Bulletin*, 127, 451–471.
- Cohen, D. (2003). The American national conversation about (everything but) shame. *Social Research*, 70, 1075–1108.
- Cousins, S. D. (1989). Culture and self-perception in Japan and the United States. *Journal of Personality and Social Psychology*, 56, 124–131.
- Cullum, J., & Harton, H. C. (2007). Cultural evolution: Interpersonal influence, issue importance, and the development of shared attitudes in college residence halls. *Personality and Social Psychology Bulletin*, 33, 1327–1339.
- Dion, K. L. & Dion, K. K. (2005). Culture and relationships: The downside of self-contained individualism. In R. Sorrentino, D. Cohen, J. Olson, & M. Zanna (Eds.), *Cultural and social behavior: The Ontario symposium* (pp. 95–116). Mahwah, NJ: Lawrence Erlbaum Associates.
- Doi, T. (1986). *The anatomy of the self: The individual versus society*. Tokyo: Kodansha International, Ltd.
- Fischer, C. S. (2002). Ever-more rooted Americans. *City & Community*, 1, 177–198.
- Fiske, A. P. (2002). Using individualism and collectivism to compare cultures—A critique of the validity and measurement of the constructs: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128, 78–88.
- Florida, R. (2002). *The rise of the creative class*. New York: Basic Books.
- Granovetter, M. (1974). *Getting a job: A study of contacts and careers*. Cambridge, MA: Harvard University Press.
- Han, S-P., & Shavitt, S. (1994). Persuasion and culture: Advertising appeals in individualistic and collectivistic societies. *Journal of Experimental Social Psychology*, 30, 326–350.
- Harton, H. C., & Bourgeois, M. J. (2004). Cultural elements emerge from dynamic social impact. In M. Schaller & C. S. Crandall (Eds.), *The psychological foundations of culture* (pp. 41–75). Mahwah, NJ: Lawrence Erlbaum Associates.
- Heine, S. J. (2001). Self as cultural product: An examination of East Asian and North American selves. *Journal of Personality*, 69, 881–906.
- Heine, S., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, 106, 766–794.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hong, Y-Y., & Chiu, C-Y. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, 19, 181–196.

- Huang, R. (1997). *China: A macro history*. Armonk, NY: ME Sharpe.
- Iyengar, S. S. & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, 76, 349–366.
- Iyengar, S. S., Lepper, M. R., & Ross, L. (1999). Independence from whom? Interdependence with whom? Cultural perspectives on ingroups versus outgroups. In D. A. Prentice & D. T. Miller (Eds), *Cultural divides: Understanding and overcoming group* (pp. 273–301). New York: Russell Sage Foundation.
- Kağitçibaşı, Ç. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology*, 36, 403–422.
- Kağitçibaşı, Ç., & Berry, J. W. (1989). Cross-cultural psychology: Current research and trends. *Annual Review of Psychology*, 40, 493–531.
- Kang, N., & Kwak, N. (2003). A multilevel approach to civic participation: Individual length of residence, neighborhood residential stability, and their interactive effects with media use. *Communication Research*, 30, 80–106.
- Kasarda, J., & Janowitz, M. (1974). Community attachment in mass society. *American Sociological Review*, 39, 328–339.
- Kashima, Y., Kokubo, T., Kashima, E. S., Bozall, D., Yamaguchi, S., & Macrae, K. (2004). Culture and self: Are there within-culture differences in self between metropolitan areas and regional cities? *Personality and Social Psychology Bulletin*, 30, 816–823.
- Kim, H., and Markus, H.R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology*, 77, 785–800.
- Kitayama, S. (2002). Culture and basic psychological processes—Toward a system view of culture: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128, 89–96.
- Kitayama, S., & Cohen, D. (2007). *Handbook of cultural psychology*. New York: The Guilford Press.
- Kitayama, S., Ishii, K., Imada, T., Takemura, K., & Ramaswamy, J. (2006). Voluntary settlement and the spirit of independence: Evidence from Japan's "Northern Frontier." *Journal of Personality and Social Psychology*, 91, 369–384.
- Kitayama, S., Markus, H. R., & Kurokawa, M. (2000). Culture, emotion, and well-being: Good feelings in Japan and the United States. *Cognition & Emotion*, 14, 93–124.
- Landler, M., & Barbaro, M. (August 2, 2006). *Wal-Mart finds that its formula doesn't fit every culture*. New York Times. <http://www.nytimes.com/2006/08/02/business/worldbusiness/02walmart.html>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Markus, H. R., & Kitayama, S. (1998). The cultural psychology of personality. *Journal of Cross-Cultural Psychology*, 29, 63–87.
- Markus, H. R. & Kitayama, S. (2003). Culture, self, and the reality of the social. *Psychological Inquiry*, 14, 277–283.
- Maslow, A. H. (1971). *The farther reaches of human nature*. New York: Viking Press.
- Matsumoto, D. (1999). Culture and self: An empirical assessment of Markus and Kitayama's theory of independent and interdependent self-construal. *Asian Journal of Social Psychology*, 2, 289–310.
- Mesquita, B., & Karasawa, M. (2002). Different emotional lives. *Cognition and Emotion*, 16, 127–141.
- Miller, J. G. (2002). Bringing culture to basic psychological theory—Beyond individualism and collectivism: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128, 97–109.
- Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently...and why*. New York: Free Press.
- Oishi, S., & Ishii, K. (2007). *Residential mobility and conditionality of group identity*. Under review. University of Virginia, Charlottesville.
- Oishi, S., Lun, J., & Sherman, G. D. (2007). Residential mobility, self-concept, and positive affect in social interactions. *Journal of Personality and Social Psychology*, 93, 131–141.
- Oishi, S., Rothman, A., J., Snyder, M., Su, J., Zehm, K., Hertel, A. W., et al. (2007). The socio-ecological model of pro-community action: The benefits of residential stability. *Journal of Personality and Social Psychology*, 93, 831–844.
- Oishi, S., Koo, M., & Akimoto, S. (2008). Culture, interpersonal perceptions, and happiness in social interactions. *Personality and Social Psychology Bulletin*, 34, 307–320.
- Oishi, S., Wyer, R. S. Jr., & Colcombe, S. (2000). Cultural variation in the use of current life satisfaction to predict the future. *Journal of Personality and Social Psychology*, 78, 434–445.
- Oyserman, D., Coon, H. M. & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128, 3–72.

- Pink, D. H. (2001). *Free agent nation: The future of working for yourself*. New York: Warner Business Books.
- Price, M. E. (2003). Pro-community altruism and social status in a Shuar village. *Human Nature*, 14, 191–208.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Reis, H. T., Clark, M. S., & Holmes, J. G. (2004). Perceived partner responsiveness as an organizing construct in the study of intimacy and closeness. In D. J. Mashek & A. Aron (Eds.), *Handbook of closeness and intimacy* (pp. 201–225). Mahwah, NJ: Lawrence Erlbaum Associates.
- Rhee, U., Uleman, J. S., & Lee, H. K. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analysis. *Journal of Personality and Social Psychology*, 71, 1037–1057.
- Rozin, P., Kabnick, K., Tete, E., Fischer, C., & Shields, C. (2003). The ecology of eating: Smaller portion sizes in France than in the United States help explain the French paradox. *Psychological Science*, 14, 450–454.
- Sampson, E. E. (1988). The debate on individualism: Indigenous psychologies of the individual and their role in personal and societal functioning. *American Psychologist*, 43, 15–22.
- Sampson, R. J. (1991). Linking the micro- and macrolevel dimensions of community social organization. *Social Forces*, 70, 43–64.
- Sampson, R. J., Morenoff, J. D., & Earls, F. (1999). Beyond social capital: Spatial dynamics of collective efficacy for children. *American Sociological Review*, 64, 633–660.
- Schmitt, E. (2001, August 6). Census data show a sharp increase in living standard. *The New York Times*. <http://www.nytimes.com/2001/08/06/national/06CENS.html>
- Schimmack, U., Oishi, S., & Diener, E. (2005). Individualism: A valid and important dimension of cultural differences. *Personality and Social Psychology Review*, 9, 17–31.
- Schwartz, B. (2004). *The paradox of choice: Why more is less*. New York: Harper Perennial.
- Schwartz, S. (1990). Individualism and collectivism: Critique and proposed refinements. *Journal of Cross-Cultural Psychology*, 21, 139–157.
- Schwarz, N. (2006). Individualism and collectivism. *Journal of Consumer Psychology*, 16, 324.
- Shavitt, S., Lalwani, A., Zhang, J., & Torelli, C. J. (2006). The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology*, 16, 325–356.
- Smith, E. R., & Conrey, F. R. (2007). Agent-based modeling: A new approach for theory building in social psychology. *Personality and Social Psychology Review*, 11, 87–104.
- Snibbe, A. C., & Markus, H. R. (2005). You can't always get what you want: Educational attainment, agency, and choice. *Journal of Personality and Social Psychology*, 88, 703–720.
- Snyder, M., Gangstad, S., & Simpson, J. A. (1983). Choosing friends as activity partner: The role of self-monitoring. *Journal of Personality and Social Psychology*, 45, 1061–1072.
- Suh, E. M. (2002). Culture, identity consistency, and subjective well-being. *Journal of Personality and Social Psychology*, 83, 1378–1391.
- Swann, W. B. J., Rentfrow, P. J., & Guinn, J. S. (2003). Self-verification: The search for coherence. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 367–383). New York: Guilford Press.
- Tocqueville, A. de (1835/2003). *Democracy in America*. New York: Penguin Books.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Tsai, J. L., Knutson, B. K., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90, 288–307.
- Tsai, J. L., Louie, J. Y., & Chen, E. E. (2007). Learning what feelings to desire: Socialization of ideal affect through children's storybooks. *Personality and Social Psychology Bulletin*, 33, 17–30.
- Tsai, J. L., Miao, F. F., & Seppala, E. (2007). Good feelings in Christianity and Buddhism: Religious differences in ideal affect. *Personality and Social Psychology Bulletin*, 33, 409–421.
- Twenge, J. M. (2000). The age of anxiety? The birth cohort change in anxiety and neuroticism, 1952–1993. *Journal of Personality and Social Psychology*, 79, 1007–1021.
- Vandello, J. A., & Cohen, D. (1999). Patterns of individualism and collectivism across the United States. *Journal of Personality and Social Psychology*, 77, 279–292.
- Van Minnen, C. A., & Hilton, S. L. (2002). *Nation on the move: Mobility in U.S. history*. Amsterdam: VU University Press.
- Waterman, A. S. (1981). Individualism and interdependence. *American Psychologist*, 36, 762–773.

- Wheeler, L., Reis, H. T., & Bond, M. H. (1989). Collectivism-individualism in everyday social life: The middle kingdom and the melting pot. *Journal of Personality and Social Psychology*, 57, 79–86.
- Whyte, W. H. (1956). *The organization man*. Oxford, UK: Simon and Schuster.
- Williams, K. D. (2001). *Ostracism: The power of silence*. New York: Guilford.
- Yamagishi, T. (1998). *The structure of trust: The evolutionary games of mind and society*. Tokyo: Tokyo University Press.
- Yamagishi, T., Cook, K. S., Watabe, M. (1998). Uncertainty, trust, and commitment formation in the United States and Japan. *American Journal of Sociology*, 104, 165–194.
- Yuki, M. (2003). Intergroup comparison versus intragroup relationships: A cross-cultural examination of social identity theory in North America and East Asian cultural contexts. *Social Psychology Quarterly*, 66, 155–183.

13 The Social and Economic Context of Peace and Happiness

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Discussions of how to establish peaceful societies occasionally arouse skepticism and controversy. Leaders and international scholars do not usually debate whether peace is desirable but rather how to achieve it in their societies. A comprehensive treatment of the concomitants of peace is beyond the scope of this chapter. However, we argue that one important element of a peaceful society is that its citizens are happy and satisfied with their lives.

Several considerations arise regarding how peace and well-being are related and whether this relation should inform national policies. For example, although peaceful conditions may foster well-being, it is also possible that well-being facilitates attitudes and perceptions (such as trust and confidence in the government) that foster peace. If a happy citizenry contributes to peace, governments should take well-being into account in their policy decisions. Nevertheless, one objection to this proposal is that focusing policies on well-being might detract attention from the social and economic situation. If feelings of well-being lead to positive perceptions of society, then abusive governments might choose to divert and entertain people without necessarily improving their actual living conditions.

The potential misuse of policies informed by well-being, though possible, does not invalidate it as an important component of peace. Similar concerns might be raised about economic development—and yet, one would not dismiss its importance in helping to stabilize a society. Also, such concerns divorce the implications of an individual's well-being from the societal context that he or she is living in. It assumes that happy individuals are completely blind and unaffected by the extensive conditions or shared experiences of people in their society. However, individuals do not function in isolation but interact with their social environment. Our goal in this chapter is to examine how individual well-being relates to societal perceptions *in conjunction with* the objective conditions in a society. A joint consideration of well-being and societal conditions can provide insight into how different components of peace may be interrelated, as well as how peace itself may be conceptualized. We will see that the association between well-being and subjective societal perceptions (e.g., generalized trust) is not independent of objective conditions. These complex interrelationships between individuals and their society are illustrated using hierarchical generalized linear modeling of cross-national data from the World Values Survey and the Gallup World Poll.

We will begin by clarifying what we mean by subjective well-being and peace, and how well-being might relate to other components of peace. We then compare our emphasis on objective living conditions with the larger body of work on culture and well-being. Although objective living conditions are distinct from cultural values and beliefs per se, the assumption that shared experiences influence social perceptions and attitudes is common to all researchers (e.g., anthropologists and cultural psychologists) who attempt to situate psychological phenomena within a broader context.

FOCUSING ON GLOBAL SUBJECTIVE WELL-BEING

Subjective well-being is a broad construct that includes frequent positive emotions, infrequent negative emotions, and cognitive judgments such as satisfaction with health, relationships, and life in general (Diener, 1984). Well-being measures can also be distinguished according to their level of specificity. Global measures of well-being refer to overall evaluations of life satisfaction and happiness, whereas specific measures have more narrow referents in terms of both time and domain (e.g., positive moods on a particular day or satisfaction with housing).

This chapter focuses on global subjective well-being. Occasionally, we use the term “happiness” or refer to “happy” and “unhappy” people, but even in these cases, we are referring to differences in global subjective well-being. We will consider how global subjective well-being is linked to positive societal perceptions such as generalized trust and confidence in government. These constructs are rather broad in that they refer to relatively abstract targets such as one’s whole life (global well-being), people in general (generalized trust), or one’s government. Our focus on broad measures is in line with our interest in the implications of well-being for peace—another broad construct. We will review later the possible links between well-being and societal perceptions.

OBJECTIVE AND SUBJECTIVE COMPONENTS OF PEACE

Peace can be characterized by both objective and subjective components. The objective components refer to the living conditions in a society and may be represented by economic and social indicators. The subjective components refer to the beliefs and feelings that people living in a peaceful, stable society might be expected to have. These can include feelings of well-being as well as people’s attitudes and perceptions of their society, such as generalized trust and confidence in the government.

OBJECTIVE COMPONENTS

Our working definition of a peaceful society is one that is able to satisfy the needs of its citizens and is characterized by economic equality and an absence of violence. Therefore, the societal conditions that we focus on are the level of wealth, economic inequality, and violence. We realize that our conceptualization may not fully capture the construct of peace and that other considerations such as rights and justice are important factors also. However, we focus on wealth, equality, and violence for two reasons: First, these variables are consistent with the United Nations’ (U.N.) emphasis on sustainable economic development and reduction of violence and inequality (de Rivera, 2004). Second, we assume that the effects of poverty, inequality, and violence may be visible to people on an everyday basis. To the extent that people notice disparately rich and poor areas of town or live in areas where gunshots are frequently heard, they have personal experiences with inequality and violence that are likely to affect their perceptions of society.

Therefore, though our conception of peace is abbreviated, it emphasizes a subset of variables that are important factors in the stability of a society. As wealth increases, societies are better able to meet some of the conditions for peace such as social stability and satisfying the basic needs of the populace. However, rising wealth does not guarantee that incomes will be distributed equally. A society cannot be considered peaceful if wealth is heavily concentrated and large segments of the population suffer in dire poverty. Consequently, it is important to consider not just economic development but its distribution through society as well. The extent of social stability may also be reflected in the level of violence in a society. High rates of death due to homicide and warfare may be symptomatic of social instability and produce greater insecurity among the populace. In addition, both violence and economic inequality may be linked. Lee (2001) found that economic inequality was positively associated with homicide rates across a sample of 50 nations. For example, in Brazil, rising violence has been attributed to poverty and perceived inequality exacerbated through exposure to the lifestyles of the wealthy via television (Colitt, 2007).

Although the U.N. has also emphasized the importance of human rights, such measures often correlate highly with and are difficult to disentangle statistically from the level of wealth in a nation (de Rivera, 2004; Diener, Diener, & Diener, 1995; Tov & Diener, 2008). That is, the wealthiest nations (e.g., Norway and the U.S.) tend also to be more democratic, affording their citizens greater political and civil liberties. Thus, although we do not consider these factors directly, they may be represented indirectly in the effects of wealth. We do not mean to imply, however, that rights and wealth are conceptually equivalent.

SUBJECTIVE COMPONENTS

We consider subjective well-being itself to be a subjective component of peace. However, stable and secure living environments not only should increase well-being, but they should also affect people's perceptions of their society. We focus on two such perceptions: generalized trust and confidence in one's government. Generalized trust refers to the belief that most people can be relied on and expected to honor their obligations. It might influence how people relate to their fellow citizens. Confidence in government refers specifically to people's trust in their government—their belief that their country's political institutions can be relied on to take care of citizens' needs.

People living in a peaceful, stable society might be more trusting of their fellow citizens than people living in a war-torn or otherwise unstable society. Perceived competition for scarce resources may foster perceptions of hostility as well as distrust of out-group members (Eidelson & Eidelson, 2003; Hardin, 1995). The psychological effects of war have also been associated with greater levels of distrust among Bosnian refugees (Mooren & Kleber, 2001).

In a peaceful society, people might also be expected to have more confidence in their government. To the extent that people hold their governments responsible for securing stable economic and social conditions, people living in such conditions should feel more positively about the politicians and leaders in office. Losing confidence in government can set the stage for unrest and instability. For instance, in 2007 violence erupted in Kenya after suspicions were raised about election fraud. The violence was particularly acute in the slums, where people were already living in poverty.

Thus, generalized trust and confidence in government are important subjective components of peace. Nevertheless, we wish to emphasize that there are many other subjective perceptions that are relevant for peace, such as the perceived fairness of institutions. Moreover, although we believe trust and confidence are necessary elements of a peaceful society, they are not by themselves sufficient indicators of peace. To illustrate, consider an oppressive ruling regime. Trust in an oppressive government that causes violence and misery cannot be characterized as a sign of peace. Therefore, it is important to examine the interaction effects between well-being and other objective societal factors, such as wealth, violence, and inequality.

THE INTERSECTION OF WELL-BEING, PERCEPTIONS, AND SOCIETAL CONDITIONS

LINKS BETWEEN WELL-BEING AND SOCIETAL PERCEPTIONS

Based on previous research, we expect individual well-being to be associated with greater trust and confidence in government. For example, DeNeve and Cooper (1998) examined the relation between various measures of subjective well-being and personality traits. They found an average relationship of .37 between well-being and trust in others. It is possible that trust and well-being facilitate each other. Experimental manipulations suggest that well-being may generate trust—participants who were induced into a positive mood were more likely to trust an acquaintance (Dunn & Schweitzer, 2005) and tended to perceive others more positively than those in a neutral or negative mood (for a

review, see Lyubomirsky, King, & Diener, 2005). Trust, in turn, could aid in the formation of social relationships, a strong correlate of well-being (e.g., Diener & Seligman, 2002).

One basis for greater trust among happy people is that they are more likely to go out and explore. Most people in most nations report a positive level of subjective well-being, and a possible explanation for this is that people have a positive set-point for affect because of the associated evolutionary advantages (Diener & Diener, 1996; Fredrickson, 1998; Ito & Cacioppo, 1999). Positive moods promote approach tendencies, which are essential for survival (e.g., to obtain food, shelter, and social support). Indeed, there is evidence that happier people may have stronger positivity offset (Ito & Cacioppo, 2005), the tendency to be in a positive state in the absence of any stimuli. Furthermore, studies by Ito and Cacioppo (2005) have shown that people with stronger positivity offset form more favorable evaluations of others, even when given only neutral information. Thus, a positive set-point would be advantageous because it motivates exploration behavior and encourages human sociability. The increased interactions with others are also likely to build trust.

There are also theoretical explanations for why well-being might be associated with confidence in government. When people are able to meet their needs and feel like the social and economic state of their society is adequate, they should experience increased well-being as well as more confidence in the performance of their government.

The notion that fulfillment of basic needs contributes to well-being receives some support from a variety of studies. For example, the relation between national wealth and subjective well-being may be due partly to the greater provision of food and shelter in affluent societies. Using various indicators of a nation's economic wealth, correlations between the wealth and subjective well-being of a nation have been found to range from .58 to .84 (Diener et al., 1995; Inglehart & Klingemann, 2000; Veenhoven, 1991). Positive levels of well-being are also observed among smaller, non-industrialized societies such as the Maasai in Kenya, the Inughuit in Greenland, and the Amish in the U.S. (Biswas-Diener, Vittersø, & Diener, 2005). People living in these societies are not wealthy but still may be able to satisfy important needs. If well-being serves as a proxy for the extent to which important needs are met, one might then expect individuals who are happy and satisfied to be more confident in the government.

OBJECTIVE CONDITIONS AS MODERATORS

Previous researchers have suggested that instability can negatively impact societal levels of well-being. Inglehart and Klingemann (2000) noted that, after the collapse of communism in Eastern Europe and the U.S.S.R., levels of well-being were lower than they were before the ensuing instability caused by political change.

The relation between well-being and societal perceptions should also be influenced by the actual conditions in a society. In general, the correlation of well-being with generalized trust and confidence in government should be weaker where there is greater social and economic instability—in other words, in societies that suffer from violence, poverty, and inequality. When the conditions in a society are unstable and unsafe, this may constrain how freely or comfortably people move through their society. Thus, even though happy individuals may be more likely to interact with and trust others, they may be less likely to do so in areas that are unsafe and unstable. Therefore, the correlation between well-being and generalized trust should be reduced in such societies.

We expect instability to attenuate the relation between well-being and confidence in government as well. First, even individuals who are relatively happy may doubt the government's ability to provide safe conditions in the face of extensive inequality and violence. Second, prolonged instability and corruption may foster receptiveness toward rebel groups as in Colombia, further delegitimizing the government. In sum, unstable conditions produced by poverty, inequality, and violence may weaken the association of well-being with societal perceptions such as generalized trust and confidence in government.

CULTURE AND OBJECTIVE CONDITIONS

We expect the links between well-being, generalized trust, and confidence in government to vary across nations, and we predict that objective indicators will account for some of this variation. Economic and social conditions notwithstanding, there are other factors such as cultural values and beliefs that may influence cross-national differences in the subjective components of peace. Although our emphasis is on societal conditions rather than cultural values, the two are not independent of each other. It is possible to argue that the material or economic aspects of a society are simply one aspect of culture, broadly construed. The conditions in a society may contribute to shared experiences that shape the development of shared beliefs. Thus, societal conditions and cultural values may be related to each other, and it may be helpful to keep this relationship in mind when contemplating how well-being and trust may vary across cultures.

A large body of research on culture and well-being has identified a number of ways the experience of well-being may differ across nations (Tov & Diener, 2007). Much of the research on culture and well-being has focused on the broad cultural dimension of individualism-collectivism (Triandis, 1995). Individualist cultures such as those in North America and Western Europe emphasize independence from one's social groups and focus on a person's unique identity and personal goals. Collectivist cultures, such as those in East Asia, emphasize interdependence with one's groups and focus on group identity and shared, collective goals. Some findings suggest that representatives of individualist cultures are more likely than representatives of collectivist cultures to judge their well-being by referencing their internal feelings. For example, self-esteem and emotions were more predictive of life satisfaction in individualist societies (Diener & Diener, 1995; Suh, Diener, Oishi, & Triandis, 1998). In addition, high self-esteem may be de-emphasized in collectivist cultures, as meeting social obligations and maintaining harmony in social relationships are more important (Heine, Lehman, Markus, & Kitayama, 1999). Consistent with this reasoning, the life satisfaction of East Asians is predicted as much by relationship harmony as it is by self-esteem (Kwan, Bond, & Singelis, 1997; Kang, Shaver, Sue, Min, & Jing, 2003).

Another relevant cultural dimension is social cynicism, a dimension of social axioms. Social axioms are generalized beliefs about oneself and the environment, and they spell out the relationship between two concepts or entities. They are pancultural, though endorsed to different extents by people in various cultures (Leung et al., 2002). Social cynicism includes a negative view of people, a mistrust of social institutions, as well as negative stereotypes about certain groups. It seems that social cynicism can affect generalized trust and confidence in government directly as well as indirectly via its influence on well-being. Indeed, a longitudinal study has shown that higher levels of social cynicism predicted lower life satisfaction (Lai, Bond, & Hui, 2007).

Thus, a number of studies attest to the role of cultural values and beliefs in shaping well-being and trust. However, economic conditions may be related to cultural values and beliefs. For example, national wealth (e.g., gross domestic product per capita) correlates positively with various measures of individualism (Diener et al., 1995; Tov & Diener, 2008). Ahuvia (2002) proposed that economic development fostered individualism by freeing people from economic dependence on one's family and in-groups. Greater individual finances might facilitate the pursuit of personal goals as well as personal well-being.

Economic inequality might also be related to cultural values. Triandis (1995; Triandis & Gelfand, 1998) further distinguished between horizontal and vertical types of individualism and collectivism. Horizontal cultures value equality. Horizontal individualism focuses on individuals as equally unique and self-sufficient; horizontal collectivism focuses on individuals as equal members of a group. In contrast, vertical cultures do not value equality. Vertical individualist cultures focus on competition; vertical collectivist cultures focus on observing rank and authority.

One conjecture is that economic equality is associated with greater horizontalism and less verticalism, either because values serve to reinforce economic systems or because economic distribution promotes certain values and beliefs. For example, Scandinavian countries such as Sweden are

reported to be high on horizontal individualism (Triandis, 1995), and income tends to be more equally distributed in these countries. For example, the average Gini index score across Denmark, Sweden, and Norway is 25.2 (where 100 represents the greatest inequality; United Nations Development Programme [UNDP], 2007). Vertical cultures, by comparison, may be more tolerant of inequality. Schimmack, Oishi, and Diener (2005) suggested that vertical individualism may overlap with power distance, a cultural dimension identified by Hofstede (2001). In cultures that are high on power distance, people may be more likely to accept that some individuals have more power than others. The Scandinavian countries also tend to be low on power distance, whereas countries that are high on power distance, such as Malaysia and Guatemala (Hofstede, 2003), tend to have higher /; scores (49.2 and 59.1, respectively; UNDP, 2007). Interestingly, power distance correlated negatively with general measures of individualism that do *not* distinguish among vertical or horizontal dimensions (Arrindell et al., 1997). Moreover, whereas general individualism correlated positively, power distance correlated negatively with national subjective well-being.

Thus, although the focus of our analysis is on the objective conditions in a society, these conditions may nevertheless be related to cultural values and beliefs. We are not suggesting that economic variables can supplant more subjective measures of culture. For example, although national well-being is positively associated with gross domestic product (GDP) per capita, well-being is higher in Latin nations and lower in Japan than would be expected based on GDP alone (Diener & Suh, 1999). This suggests that cultural values could explain additional variance on top of that accounted by economic variables. Although there are widely available measures of cultural dimensions (e.g., Hofstede, 2001), not all countries in our samples have such data. We therefore opted to limit our range of inquiry while working with as large a sample of nations as possible.

HIERARCHICAL LINEAR MODELING AS A TOOL FOR CROSS-CULTURAL RESEARCH

We examined the association of well-being with societal perceptions such as generalized trust and confidence in the government using the World Values Survey and the Gallup World Poll. We also examined how objective societal conditions (i.e., wealth, economic inequality, and violence) moderate the relation between well-being and perceptions of peace.

We were interested in two levels of analysis. At the person-level, we examined whether an individual's well-being accounted for variation in societal perceptions across respondents. It is worth noting that the research we reviewed earlier predicts that well-being will be associated with trust and confidence *at the individual level*. At this level, we are asking whether happy individuals are more likely to trust others and their own governments than unhappy people are. Processes that occur at the individual level may not be the same as those that occur at the nation level. For example, instability might lower societal levels of confidence in government, but particular individuals might still have confidence.

At the nation-level, we examined whether objective conditions accounted for variation in the association between well-being and societal perceptions across countries. Given our interest in two levels of analysis and the nested structure of our data (individuals within countries), we employed hierarchical generalized linear modeling. An alternative approach would be to use ordinary least squares regression (OLS) by assigning all individuals within a country the same values on nation-level variables (e.g., economic inequality). However, OLS treats all individuals as independent observations and ignores the possibility that individuals within the same country may share certain experiences that they do not share with people from different countries. As a result, the standard errors for the effects of nation-level variables may be underestimated, inflating Type I error.

Within a hierarchical linear modeling framework, individual respondents can be clustered within nations, and variation in the relation between well-being and societal perceptions across nations can be explicitly addressed. Assuming that the association between well-being and societal perceptions

is partly affected by the experiences that are shared by people within a country, these shared experiences can be operationalized by nation-level variables such as objective living conditions. That is, nation-level characteristics can be used to predict variation in how strongly well-being is associated with societal perceptions. The standard errors for nation-level effects are then more appropriately based on the number of countries rather than the total number of individual respondents.

An important concern is whether or not shared experiences can be meaningfully captured at the level of nations. In general, this will depend on the constructs that one is interested in. Our interest is in perceptions of broad targets such as trust in generalized others or one's government. Therefore, indicators of overall conditions within a nation may be appropriate. Nevertheless, there may be a great deal of variation within nations in terms of well-being, generalized trust, and confidence in government. An interesting question for future research is to explore the extent to which more localized variables (e.g., the conditions of one's city) influence perceptions of one's country as a whole. That said, we believe our analyses will still be informative if national conditions are shown to moderate the links between well-being and perceptions of society. If the effects of objective conditions are found at the broad level of nations, one might expect local conditions to produce even stronger effects on more proximal perceptions of one's city or town.

We utilized hierarchical *generalized linear modeling* because our criterion variables were either dichotomous or ordinal in nature. As with logistic regression, what is estimated from the predictor variables is the log-odds or probability of giving a certain response. We turn first to the World Values Survey and then to a much larger sample of nations in the Gallup World Poll.

WORLD VALUES SURVEY (WVS)

Data were primarily taken from the 1999–2000 wave of the WVS. Not all countries could be included due to a lack of data on certain variables. In order to increase our sample, we included six nations from the 1995 wave. This resulted in a maximum sample size of 71,920 respondents from 50 countries.

PERSON-LEVEL MEASURES

Subjective well-being (SWB). Respondents rated their satisfaction with life (1 = *dissatisfied*, 10 = *satisfied*) and their feeling of happiness (1 = *not at all*, 4 = *very happy*). Responses were first converted to a 100-point scale and then averaged into an overall well-being score ($M = 65.09$, $SD = 23.10$). The correlation between life satisfaction and happiness across respondents was $r(71,918) = .53$, $p < .001$.

Trust. Respondents indicated whether they believed “that most people can be trusted or that you can't be too careful in dealing with people.” Responses were dichotomously coded (0 = *can't be too careful*, 1 = *most people can be trusted*). At the individual-level, 27.5 percent of respondents believed most people can be trusted.

Confidence in parliament. Confidence in the legislative branch of government (or parliament) was rated on a scale from 1 (*none at all*) to 4 (*a great deal*). We considered responses of either 3 (*quite a lot*) or 4 to indicate confidence in the parliament. Approximately 28 percent of respondents were confident in their nation's parliament.

NATION-LEVEL MEASURES

Gross domestic product (GDP) per capita. We obtained each nation's GDP per capita for the relevant year from the Penn World Tables (Heston, Summers, & Aten, 2002) in constant 1996 dollars. We applied a natural log transformation to stabilize the wide variance in GDP data.

Violent Inequality. In our initial selection of objective indicators, we drew on previous empirical work on the U.N. criteria for peace and stability. De Rivera (2004) factor-analyzed a number of

economic, social, and political indicators representing the U.N. criteria. The various indicators were compiled between 1999 and 2002 and are thus largely contemporaneous with the majority of our WVS sample. The first factor extracted included GDP per capita as well as political indicators measuring the extent of human rights and democracy in a nation. As noted earlier, these measures tend to correlate heavily with each other. The second largest factor was composed of economic inequality (the Gini index) and homicide rates. De Rivera labeled this factor “violent inequality” and provided factor scores for over 70 nations. We used these factor scores to characterize the level of inequality and violence in a society. These scores ranged from -1.78 (Croatia) to 2.57 (Argentina).

RESULTS

Table 13.1 presents the correlations among nation-level variables in the WVS. Also included are correlations with nation-level aggregates of SWB, trust, and confidence in the parliament. Generalized trust correlated positively with GDP per capita but negatively with violent inequality ($p < .10$). Confidence in government did not correlate significantly with either GDP or violent inequality. It is interesting to note that at the nation-level, SWB correlates with generalized trust, but not significantly with confidence in parliament. We will postpone discussion of this difference until after we examine the individual-level associations.

Table 13.2 presents the results of nonlinear hierarchical models predicting generalized trust and confidence in parliament from respondents’ subjective well-being and nation-level variables. In the case of well-being, respondents’ scores were group-mean centered (i.e., the mean for their country was subtracted from their score).

Each hierarchical model consists of two parts: an intercept model and the subjective well-being slope model. The intercept model predicts the size of the intercept (β_0) from nation-level predictors (log GDP per capita and violent inequality). The slope model predicts the size of the regression slope of societal perceptions on well-being (β_{SWB}) from the same nation-level variables. We follow the convention of Raudenbush and Bryk (2002) in labeling coefficients in the intercept model from G00 to G02, and those in the slope model from G10 to G12. In Table 13.2, both raw and standardized coefficients are presented.

In the intercept model, the G00 coefficients are log-odds representing the average intercept (β_0) or level of generalized trust and confidence across the 50 nations in our sample. For generalized trust, G00 equals -1.017, which corresponds to a probability of $\exp(-1.017)/[1 + \exp(-1.017)] = .27$. Thus, the average number of respondents in each nation who believe most people can be trusted is 27 percent. The overall level of trust is higher in some countries and lower in others. Recall that generalized trust tended to be higher in countries that were high on GDP per capita and low on violent inequality (see Table 13.1). The remaining coefficients in the intercept model (G01 and G02) test the unique association of each nation-level variable with trust. These coefficients indicate

TABLE 13.1
Correlations Among Nation-Level Variables

Variables	1	2	3	4
1. Log GDP per capita	--			
2. Violent inequality	-.16	--		
3. SWB	.70***	-.03	--	
4. Generalized trust	.38**	-.28†	.34*	--
5. Conf. parliament	-.20	-.20	.04	.36*

Note: Conf. parliament = Confidence in parliament. N = 50.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

TABLE 13.2
Hierarchical Generalized Linear Models Predicting Generalized Trust and Confidence in Parliament From Person-Level SWB and Nation-Level Variables in the World Values Survey

	Generalized Trust			Confidence in Parliament		
	Coefficient		t	Coefficient		t
	Raw	Stdz		Raw	Stdz	
Intercept, G00	-1.017		-9.978***	-.471		-22.242***
Log GDP per capita, G01	.330	.273	2.626*	-.228	-.189	-1.605
Violent inequality, G02	-.311	-.262	-2.509*	-.241	-.204	-1.726†
SWB slope, G10	.010	.234	12.257***	.007	.164	9.008***
Log GDP per capita, G11	.003	.053	2.748**	-.000	-.005	-.293
Violent inequality, G12	-.002	-.035	-1.736†	-.002	-.047	-2.553*

Note: Stdz = Standardized coefficients

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

that GDP was associated with greater levels of trust and that violent inequality was associated with lower levels of trust.

In the subjective well-being slope model, the G10 coefficient represents the average betas or association between person-level well-being and the criterion measures (β_{SWB}). On average, well-being was associated with increased trust in others. This association is stronger in some countries and weaker in others. The remaining coefficients in the slope model (G11 to G12) test whether each nation-level variable uniquely moderates the relation between well-being and generalized trust. The results indicate that the association between well-being and trust was moderated by GDP per capita. Figure 13.1 displays the interaction between GDP and well-being. We first estimated the log odds of trust at one standard deviation above and below the mean of both well-being and GDP per capita. These predicted log odds were then converted to probabilities.

In societies where GDP was high, happy people were much more likely to be trusting than unhappy people (.38 versus .27, respectively). In poorer countries, however, this difference was appreciably less. We also examined the zero-order correlation between well-being and generalized trust in wealthy versus poor countries. For example, the correlation was higher in a wealthy nation like Finland than it was in a poorer nation like India ($r = .15$ and $.01$, respectively). In addition, well-being was *less* strongly associated with trust in countries that were high on violent inequality. Although the moderating effect of violent inequality was marginally significant ($p = .09$), we will see that a similar effect was observed in the Gallup data.

Subjective well-being was also positively associated with confidence in parliament. However, this association was moderated by violent inequality. As shown in Figure 13.2, happy people were generally more confident in parliament than unhappy people, but the effect was stronger in societies where violent inequality was low.

For instance, the correlation between well-being and confidence is greater in Morocco (low on violent inequality; $r = .08$) than in Russia (high on violent inequality; $r = -.01$). These results tentatively suggest that the relation between well-being and societal perceptions is partly constrained by the objective conditions in a society.

Although well-being correlates with confidence in parliament at the individual level, recall that it did not correlate at the nation level. This suggests that national levels of well-being and confidence in government may not be conceptually equivalent to their individual level counterparts—a

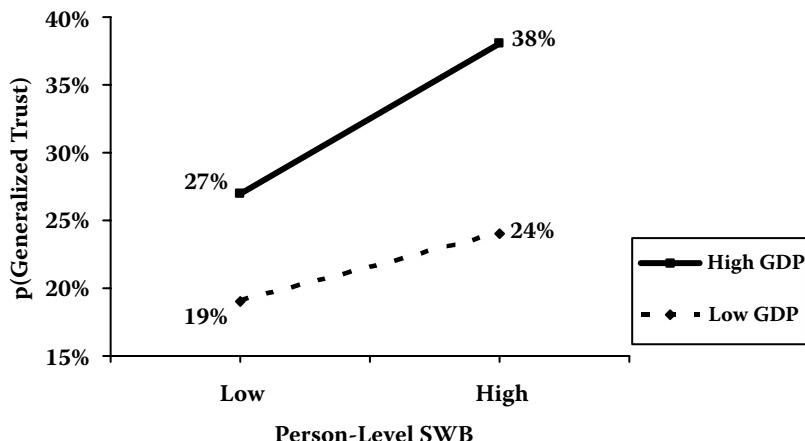


FIGURE 13.1 Likelihood of generalized trust as a function of person-level SWB and nation-level log GDP per capita (World Values Survey).

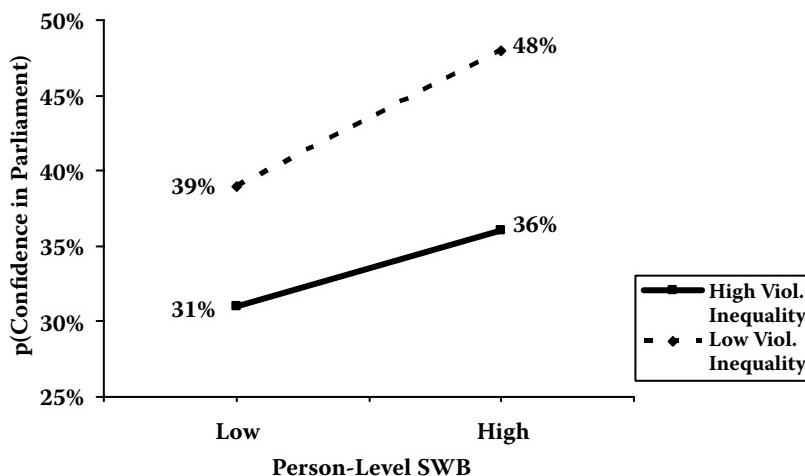


FIGURE 13.2 Likelihood of confidence in parliament as a function of person-level SWB and nation-level violent inequality (World Values Survey).

reminder of the ecological fallacy. In other words, some factors that contribute to mean levels of well-being and confidence in a nation may not necessarily contribute to well-being and confidence at the individual level.

One way to make sense of this discrepancy is to mind the fact that the correlation between individual well-being and confidence varies across nations. In some countries, then, confidence in government is less related to well-being. The moderating effects of violent inequality may suggest not only that happy people are not blind to conditions in their society, but they might also indicate that when conditions are unstable, some people may be able to secure a sense of well-being without expecting government support, either because of perceived inefficiency or corruption. One country in the 1999–2000 wave that seems to fit this profile is Mexico—which was relatively high on violent inequality and ranked 42nd out of 50 in terms of confidence in the government, but had a mean well-being score of 81 out of 100. This dissociation between well-being and confidence in some countries and not others may partly account for the lack of association at the nation level.

One important limitation of our subsample of the WVS is that few countries from Africa, Central America, and Southeast Asia were included. Nations from these regions represent some of the poorest and unequal societies in the world—and therefore would provide a stronger test of the moderating effects of societal conditions.

GALLUP WORLD POLL

Our analysis of the Gallup World Poll served several purposes. First, we wanted to replicate the observed interactions between societal conditions and subjective well-being. Second, instead of using factor scores that combine the level of violence and inequality, we obtained separate data on economic inequality and violence. Thus we could investigate more closely which aspect of society moderates the relation of well-being to trust and confidence in government. Finally, the Gallup data set provides us with a larger sample of nations.

From late 2005 through 2006, the Gallup Organization surveyed representative samples from 132 societies. Several countries could not be included because the relevant items were not asked or because nation-level data were not available. The final sample consisted of a maximum sample size of 103,218 respondents from 108 countries.

PERSON-LEVEL MEASURES

Ladder of life. As an evaluation of their life, respondents indicated which step of a ladder numbered from 0 (*worst possible life*) to 10 (*best possible life*) represents their present life situation ($M = 5.43$, $SD = 2.25$).

Generalized trust. Respondents were asked to imagine losing their wallet or something valuable. They then indicated (yes or no) whether they believed their wallet would be returned to them if found by a stranger, neighbor, or the police. Data were only available for 75 nations. Responses were summed across the three items ($\alpha = .62$, $M = 1.27$, $SD = 1.04$). In the results, we will present the likelihood of trusting all three targets.

Confidence in government. Whether respondents had confidence in the national government was measured dichotomously (yes or no). Fifty-four percent of respondents had confidence in their national government.

NATION-LEVEL MEASURES

GDP per capita. We obtained figures for 2006 GDP per capita based on purchasing power parity in international dollars (International Monetary Fund, 2007). As before, we log transformed GDP per capita before including it in our analyses.

Economic inequality. Each nation's level of economic inequality was assessed by the Gini index (UNDP, 2007), with values running from 0 to 100. Higher scores indicate greater inequality. Values ranged from 24.7 (Denmark) to 62.9 (Sierra Leone), with a mean of 40.1 and a standard deviation of 9.52.

War-related deaths. Due to a lack of comprehensive international data on homicide rates, we utilized war-related death rates per 100,000 (World Health Organization, 2002) as an alternative measure of violence. We used data from the most recent year available, 2002 ($M = 1.93$, $SD = 6.60$). Rates ranged from 0 (several countries) to 39.3 (Macedonia). Because death rates were positively skewed, we applied a square-root transformation to normalize the distribution.

RESULTS AND DISCUSSION

The correlation of nation-level variables with Gallup World Poll data are presented in Table 13.3. Once again, generalized trust correlated positively with GDP per capita. Trust also tended to be

TABLE 13.3
Gallup World Poll: Correlations Among Nation-Level Variables

Variables	1	2	3	4	5
1. Log GDP per capita	--				
2. War deaths	-.31**	--			
3. Economic inequality	-.36***	.14	--		
4. SWB (ladder)	.83***	-.28**	-.28**	--	
5. Generalized trust	.49***	-.08	-.35**	.51***	--
6. Conf. government	-.15	.06	.00	-.03	.24*

Note: Conf. government = Confidence in government. N = 108 except for correlations with generalized trust (N = 75).

* $p < .05$ ** $p < .01$ *** $p < .001$

TABLE 13.4
Hierarchical Generalized Linear Models Predicting Generalized Trust and Confidence in Government From Person-Level SWB and Nation-Level Variables in the Gallup World Poll

	Generalized Trust			Confidence in Government		
	Coefficient		<i>t</i>	Coefficient		<i>t</i>
	Raw	Stdz		Raw	Stdz	
Intercept, G00	-2.043		-20.691***	.178		1.742†
Log GDP per capita, G01	.383	.454	4.389***	-.167	-.197	-1.709†
War death rate, G02	.051	.069	.762	-.026	-.035	-.322
Economic inequality, G03	-.024	-.224	-2.350*	-.010	-.093	-.854
SWB (ladder) slope, G10	.079	.178	8.273***	.085	.190	12.144***
Log GDP per capita, G11	.016	.043	1.915†	.001	.002	.129
War death rate, G12	.002	.005	.276	-.013	-.039	-2.347*
Economic inequality, G13	-.002	-.040	-1.938†	-.003	-.056	-3.404**

Note: Stdz = Standardized coefficients.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

lower in countries with greater economic inequality but was not associated with war-related death rates. Confidence in government was not associated with any measure of objective condition. Greater well-being was associated with greater trust but again was not associated with confidence in government.

We estimated two nonlinear hierarchical models predicting generalized trust and confidence in government from respondents' well-being and three nation-level variables (GDP, economic inequality, and war-related death rates). The results in Table 13.4 confirm the zero-order correlations in showing that generalized trust is higher in countries with greater wealth and less inequality. Thus, objective conditions appear to have a direct impact on societal levels of trust. Individual well-being was also predictive of trust. However, the moderating effects of GDP and inequality were marginally significant, though in the same direction observed in the WVS. Well-being is more strongly associated with trust where GDP is high and inequality is low. These patterns are consistent with the idea that well-being is more predictive of trust in stable societies.

Confidence in government was again associated with individual well-being. Although objective conditions did not predict overall levels of confidence, both war death rates and economic inequality moderated the relation between well-being and confidence. These interactions are presented in Figure 13.3 and Figure 13.4 and can be interpreted similarly to the effects of violent inequality in the WVS. In societies that suffered high rates of war deaths or high levels of economic inequality, well-being was less strongly associated with confidence in government.

Though significant, it is worth noting that the interaction between war death rates and well-being is notably weak. Because the data were compiled in 2002, the interaction might partly reflect the lingering effects of warfare and may not fully capture the reality of ongoing experiences of violence. In the Congo region, for instance, warfare between 1998 and 2003 destabilized several African nations, and these effects may continue to affect societal conditions. The correlation between well-being and confidence in government is inconsistent across Rwanda, Zimbabwe, Uganda, and

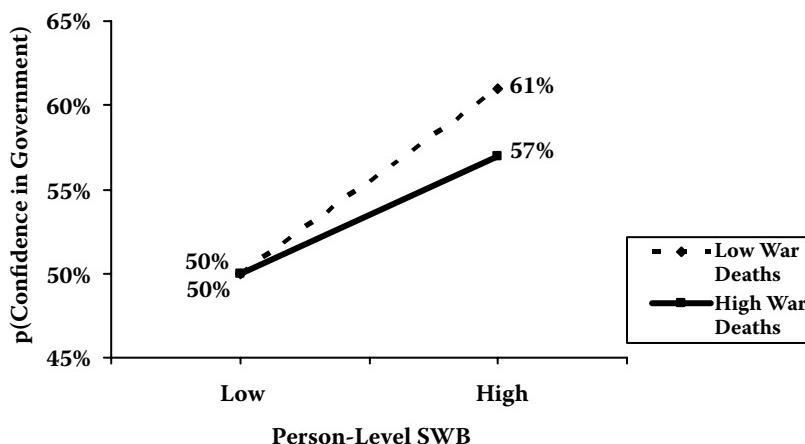


FIGURE 13.3 Likelihood of confidence in government as a function of person-level SWB (ladder) and nation-level war-related death rate (Gallup World Poll).

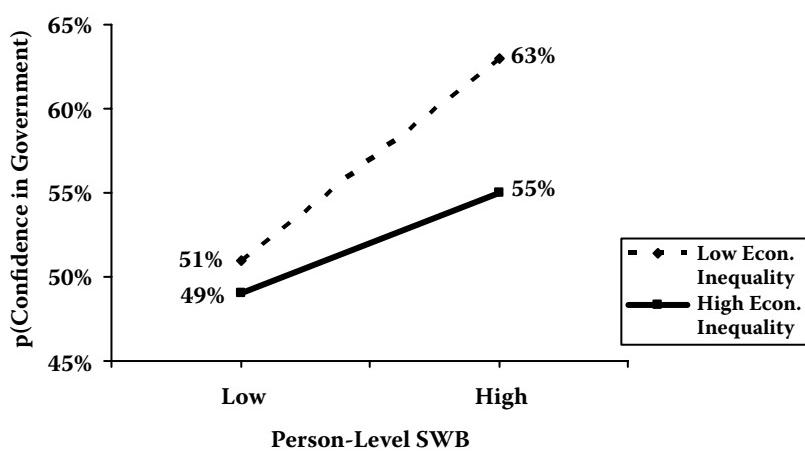


FIGURE 13.4 Likelihood of confidence in government as a function of person-level SWB (ladder) and nation-level economic inequality (Gallup World Poll).

Burundi (average $r = -.02$). However, in Macedonia, where conditions have improved since 2002, the correlation between well-being and confidence is .10.

The nature of war might also explain why death rates did not affect overall levels of generalized trust. The World Health Organization data on war-related death rates do not distinguish between internal conflicts and those that are due to an external threat (e.g., another country). Internal conflicts might reduce generalized trust among one's fellow citizens, but external threats may not. Data that distinguish between types of conflicts as well as more updated data on homicide rates across countries would be invaluable in clarifying the effects of violence on societal perceptions.

GENERAL DISCUSSION

At the individual level, well-being was consistently associated with generalized trust and confidence in the government. Individuals who were happy and satisfied with their lives were more likely to endorse attitudes that are important for sustaining peace. One interpretation of these findings is that happy individuals are simply predisposed to perceive others positively. Our analyses suggest that these dispositional effects may be present in that the relation between well-being and societal perceptions is significantly positive, even when averaging across nations that vary greatly in terms of economics and social stability.

Nevertheless, dispositional effects do not completely explain the link between well-being and societal perceptions. Importantly, how strongly well-being is related to generalized trust and confidence in the government depends on objective conditions. Well-being and trust are more strongly correlated in societies that are wealthy and have greater equality. Well-being is also more predictive of confidence in the government when equality is high and violence is low. In short, the conditions in a society can constrain or enhance the relation between well-being and societal perceptions. Unstable conditions may reduce the number of people one is willing to rely on, and those who are able to secure a sense of well-being may not necessarily credit the government, which itself may be contributing to instability. In a stable society, the government appears to be providing adequate living conditions, and happy people may be individuals who are benefiting greatly from such conditions, which may increase trust as well as the perceived legitimacy of the government.

IMPLICATIONS FOR CONCEPTUALIZING THE NATURE OF PEACE

Efforts to build peace often emphasize improvements in the objective conditions in a society. We do not dispute the importance of improved living conditions in helping to establish peace and stability. However, the assumption that increasing economic development and equality will automatically raise subjective feelings of well-being, trust, and confidence can be questioned by our analyses. For instance, economic inequality and violence do not appear to correlate with people's confidence in government; instead, these factors *interact* with well-being to predict confidence. Thus, peace may best be characterized not by objective conditions or subjective perceptions alone—but by their *joint* presence. An example of a peaceful, stable society is one that is low on poverty, violence, and inequality *and* where people have a sense of well-being, generalized trust, and confidence in the government. The interrelations between objective and subjective factors may paint a more accurate picture of what the structure of a stable, peaceful society might be like. Thus, monitoring well-being along with other subjective measures and objective conditions might help leaders to sustain and enhance the conditions for peace.

INCORPORATING KNOWLEDGE OF CULTURAL VALUES IN THE FORMATION OF POLICY

As shown, individual well-being is an important predictor of trust and confidence. Well-being, in turn, is related to and can be influenced by various factors, such as the self, social relationships, and identity consistency. Because the correlates and causes of well-being vary across cultures due to

differences in cultural values and norms, it is likely that cultural values also moderate the relation between well-being and societal perceptions.

Hence, we should examine not only how objective conditions, but also how cultural values, moderate the relation between well-being and societal perceptions. Policies that can work in one nation may not work in another, not only because of differences in economic or political conditions, but also because of cultural values. Including measures of *perceived* cultural importance of values (Wan et al., 2007) in future surveys may help explain cross-national variations in the relation between well-being and societal perceptions.

In addition, another possible way cross-cultural research may help inform national and international policies is by examining how cultural values relate to and interact with social and economic conditions. We have conceptualized objective conditions as one aspect of the shared experiences of people in a society. Although economic and social stability can be distinguished from cultural values and beliefs, such factors as wealth, inequality, and violence can affect the perceptions and beliefs that people have of their social and physical world. Thus, the conditions in a society may play a role in shaping the subjective elements of a culture. For example, wealth and equality appear to be related to overall levels of generalized trust. If Ahuvia (2002) is correct that economic development frees the individual from dependence on one's family, then one could view generalized trust as an adaptation to a more individualistic social structure in which people must frequently rely on others who are outside one's in-groups. Alternatively, lack of wealth and equality could foster social cynicism, which could reduce trust and confidence in government, as well as subjective well-being (Lai et al., 2007). Certain values and beliefs, in turn, may play a role in reinforcing social and economic systems. Although policymakers often target objective conditions, knowledge of cultural values could shed light on how potential policies may be perceived by the people who are affected. This would provide a guide as to how policies can be revised and tailored to the specific societal context.

Peace research is an interdisciplinary effort. Psychologists who study well-being and culture can offer important insights by improving our understanding of the interface between individuals and society. Policymakers usually aim to effect change at the societal level, occasionally relying on anecdotal evidence for insight on how their policies affect individual people. Psychologists can offer more systematic analyses by continuing to research topics such as well-being, social attitudes, person perception, and cultural values—and how they are shaped by and contribute to social and economic conditions.

REFERENCES

- Ahuvia, A. C. (2002). Individualism/collectivism and cultures of happiness: A theoretical conjecture on the relationship between consumption, culture and subjective well-being at the national level. *Journal of Happiness Studies*, 3, 23–36.
- Arrindell, W. A., Hatzichristou, C., Wensink, J., Rosenberg, E., van Twillert, B., Stedema, J., et al. (1997). Dimensions of national culture as predictors of cross-national differences in subjective well-being. *Personality and Individual Differences*, 23, 37–53.
- Biswas-Diener, R., Vittersø, J., & Diener, E. (2005). Most people are pretty happy: The Inughuit, the Amish, and the Maasai. *Journal of Happiness Studies*, 6, 205–226. Eugene: University of Oregon.
- Colitt, R. (2007, April 15). Brazil pays for inequality with violence. *Reuters*.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin*, 124, 197–229.
- de Rivera, J. (2004). Assessing the basis for a culture of peace in contemporary societies. *Journal of Peace Research*, 41, 531–548.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575.
- Diener, E., & Diener, C. (1996). Most people are happy. *Psychological Science*, 7, 181–185.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653–663.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, 69, 851–864.

- Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science*, 13, 81–84.
- Diener, E., & Suh, E.M. (1999). National differences in subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 434–450). New York: Russell Sage Foundation.
- Dunn, J. R., & Schweitzer, M. E. (2005). Feeling and believing: The influence of emotion on trust. *Journal of Personality and Social Psychology*, 88, 736–748.
- Eidelson, R. J., & Eidelson, J. I. (2003). Five beliefs that propel groups toward conflict. *American Psychologist*, 58, 182–192.
- Fredrickson, B.L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.
- Gallup World Poll. (April 10, 2007) [Data file]. Washington, D.C.: Gallup Organization.
- Hardin, R. (1995). Self-interest, group identity. In A. Breton, G. Galeotti, P. Salmon, & R. Wintrobe (Eds.), *Nationalism and rationality* (pp. 14–42). Cambridge, UK: Cambridge University Press.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, 106, 766–794.
- Heston, A., Summers, R., & Aten, B. (2002). *Penn world table version 6.1*. Philadelphia: Center for International Comparisons at the University of Pennsylvania (CICUP) [producer and distributor]. Retrieved December 29, 2007 from <http://pwt.econ.upenn.edu/Downloads/pwt61-doc.exe>
- Hofstede, G. (2001). *Culture's consequences* (2nd ed.). Beverly Hills, CA: Sage.
- Hofstede, G. (2003). Geert Hofstede cultural dimensions. ITIM International. Retrieved February 21, 2008, from <http://www.geert-hofstede.com/>
- Inglehart, R., & Klingemann, H-D. (2000). Genes, culture, democracy, and happiness. In E. Diener & E.M. Suh (Eds.), *Culture and subjective well-being* (pp. 185–218). Cambridge, MA: MIT Press.
- International Monetary Fund (April, 2007). World economic outlook database. Retrieved August 9, 2007 from <http://www.imf.org/external/pubs/ft/weo/2007/01/data/index.aspx>
- Ito, T. A., & Cacioppo, J. T. (1999). The psychophysiology of utility appraisals. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 470–488). New York: Russell Sage Foundation.
- Ito, T. A., & Cacioppo, J. T. (2005). Variations on a human universal: Individual differences in positivity offset and negativity bias. *Cognition and Emotion*, 19, 1–26.
- Kang, S.-M., Shaver, P. R., Sue, S., Min, K.-H., & Jing, H. (2003). Culture-specific patterns in the prediction of life satisfaction: Roles of emotion, relationship quality, and self-esteem. *Personality & Social Psychology Bulletin*, 29, 1596–1608.
- Kwan, V. S. Y., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology*, 73, 1038–1051.
- Lai, J., Bond, M. H., & Hui, N. (2007). The role of social axioms in predicting life satisfaction: A longitudinal study in Hong Kong. *Journal of Happiness Studies*, 8, 517–535.
- Lee, M. R. (2001). Population growth, economic inequality, and homicide. *Deviant Behavior*, 22, 491–516.
- Leung, K., Bond, M. H., Carrasquel, S. R., Muñoz, C., Hernández, M., Murakami, F., et al. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology*, 33, pp. 286–302.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803–855.
- Mooren, G. T. M., & Kleber, R. J. (2001). The impact of war in Bosnia and Herzegovina. *International Journal of Mental Health*, 30, 6–21.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Schimmack, U., Oishi, S., & Diener, E. (2005). Individualism: A valid and important dimension of cultural differences between nations. *Personality and Social Psychology Review*, 9, 17–31.
- Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, 74, 482–493.
- Tov, W., & Diener, E. (2007). Culture and subjective well-being. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 691–713). New York: Guilford.
- Tov, W., & Diener, E. (2008). The well-being of nations: Linking together trust, cooperation, and democracy. In B. A. Sullivan, M. Snyder, & J. L. Sullivan (Eds.), *Cooperation: The political psychology of effective human interaction* (pp. 323–342). Malden, MA: Blackwell.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.

- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- United Nations Development Programme (2007). Inequality in income or expenditure. Retrieved December 13, 2007, from <http://hdrstats.undp.org/indicators/147.html>
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, 24, 1–34.
- Wan, C., Chiu, C.-y., Tam, K.-p., Lee, S.-l., Lau, I. Y.-m., & Peng, S. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology*, 92, 337–354.
- World Health Organization (2002). Causes of death and burden of disease estimates by country [data]. Retrieved October 28, 2007 from <http://www.who.int/entity/healthinfo/statistics/bodgbdeathdalyestimates.xls>
- World Values Survey Organization. (2005). *Values survey official aggregate datafile, 1995 & 1999/2000 waves* [computer file]. Madrid, Spain: APES/JDS [distributor]. Retrieved February 22, 2006 from <http://www.worldvaluesurvey.org/services/index.html>

Section IV

*Psychological Manifestations of Culture:
Cognition, Perception, and Emotion*

14 Language, Culture, Cognition

How Do They Intersect?

Gün R. Semin

CALIBRATING THE DOMAIN

The importance of the crossroads constituted by language, psychology, and culture was acknowledged early on in the history of psychology. The journal *Zeitschrift für Völkerpsychologie und Sprachwissenschaft*, established in 1860, was conceived precisely for this purpose, namely, to reveal insights about the human psyche that could be discovered at these crossroads (cf. Lazarus, 1861; Lazarus & Steinthal, 1860). The issue has occupied a prominent position in human intellectual history, and its current form was shaped by a number of eminent scholars (e.g., Boas, 1949; von Humboldt, 1843; Sapir, 1951; Whorf, 1956). The two central questions driving this field are: Does language influence, shape, or perhaps even determine human cognitive activities? And the flip side of the coin: Do cognitive processes affect language?

These questions have been largely assumed to be Benjamin Lee Whorf's legacy, and the presumed stronger version of his argument was that the categories and distinctions afforded by the languages of the world shape the way we perceive, analyze, and act in the world. On the surface, these two questions invite comparative forms of inquiry, as cultures differing in linguistic practices supply a natural laboratory for the examination of this crossroad. The notion that language shapes thought acquires different complexions, depending on the way the problem is anchored. The notion that language shapes thought in the sense that language is prior to thought is nearly universally rejected in current cognitive science. This is not surprising, given the ample evidence revealing that humans have a wealth of conceptual and inferential systems that they share with nonhuman species. Spelke (2000, 2003; Hauser & Spelke, 2004) refers to them as "core knowledge systems." The knowledge systems that Spelke considers are primarily *prelinguistic* and therefore nonsocial. The research examples are found in fields such as numerosity and spatial orientation and are grounded on a relational ontology in that features of these realities exist as a function of the interaction between the physical capabilities and properties of the observer and the physical properties of the environment (Gibson, 1977, 1979).

Although the evidence that cognition is not influenced by language is not contested in the work reported by Spelke and others, there is ample evidence that language shapes thought and is in line with the classic agenda set by Lenneberg (1953, p. 463): "Does the structure of a given language affect the thoughts (or thought potential), the memory, the perception, the learning ability of those who speak that language?" Do linguistic structures influence nonlinguistic categorization, memory, perception, thinking? One classic set of studies that has been presented in the context of eyewitness testimony speaks directly to this question, namely, the influence of language upon memory (Loftus, 1975, 1979). For instance, having been misleadingly asked about a blue car that was green in the video that they had seen, participants were more likely to remember the car as blue than a control group that was given no mention of color (Loftus, 1977). Modifying verbal references to a car collision implying differences in velocity (e.g., "smash" versus "hit") has been shown to lead participants to recall the cars traveling at a higher speed in the "smash" condition than the "hit" condition.

These participants were also more likely to erroneously report broken glass at the incident (Loftus & Palmer, 1974).

This chapter approaches the question of how languages shape cognition in terms of language use and examines differences in the accessibility of specific linguistic categories across different languages. Here we take a position espoused by Kay (1996). He points out that it is possible to conceptualize and examine linguistic relativity (with more experimental control) in terms of a single language that provides its speakers with different ways of talking and/or representing and, as we shall argue later, perceiving the same thing. This conceptualization of the interface between language and cognition may furnish a novel perspective on the crossroads between language, culture, and cognition. Thus, the central body of the research presented in this chapter is obtained within a single linguistic community and is concerned with how different generic linguistic categories influence perception. This research has a variety of advantages, as we shall detail in the next section. For one thing, the work is experimental and not correlational. Furthermore, the fact that it is conducted within the same linguistic community allows tighter control over data collection than comparative research. We then extrapolate from these within-culture differences in how generic linguistic categories shape perception to between-culture differences on the basis of systematic cultural differences in language use.

In the next section, we briefly discuss three general tenets of the traditional approach to this crossroad of language, cognition, and culture. First, this type of research has been primarily domain-specific (e.g., color, time, space, gender). Second, language and cognition are treated as inner representational and amodal systems that are disembodied, timeless, and subjectless (for exceptions, see Boroditsky & Prinz, 2008; Glenberg, 2008; Slobin, 2003; Tomasello, 2003; also Chiu, Lee, & Kwan, 2007). The third tenet is the general methodological concerns that are hallmarks of accompanying comparative research. It is against this background that the following section spells out the particular *functional* approach that drives the conceptualization presented here. The third section of this chapter summarizes research that provides an interface between language and cognition and this functional perspective. It further reviews empirical studies that compare different linguistic communities and discusses its implications for the culture, language, and cognition interface.

LANGUAGE, COGNITION, AND CULTURE: CONSTRAINTS AND RECALIBRATIONS

Three issues stand out in the standard approach to the research on the relationship between language and thought. The first is the linguistic contents that have been the subject of the research. The second has to do with the assumptions about how one should understand language and cognition. The third arises from the fact that doing comparative research across different linguistic cultures introduces particular methodological problems that are very difficult to surmount. We address each of these in turn.

Domain specificity. Investigations of the linguistic relativity hypothesis typically compare linguistic communities in terms of a categorical domain (e.g., color) or syntactic feature that is linguistically represented in these communities. When two linguistic communities differ in categorization (e.g., color naming), one can examine whether such differences affect nonlinguistic processes in a directly implicated cognitive domain (e.g., perception of color, memory of color). Several research questions are raised by such a comparative perspective. For example, do cultural differences in color-coding influence the actual perception of color (e.g., Özgen, 2004; Regier, Kay, & Cook, 2005), space (Majid, Bowerman, Kita, Haun, & Levinson, 2004), or time (Boroditsky, 2001)? Do cultural differences in grammatical gender influence gender-related memory (e.g., Boroditsky et al., 2003; Stahlberg, Sczesny, & Braun, 2001)? Do cultural differences in spatial metaphors that

people use influence their concept of time (e.g., Boroditsky, 2001), and so on (see Gertner & Goldin-Meadow, 2003; Gumpertz & Levinson, 1996)?

In this chapter we focus on a broader domain. Our reference to “language” covers the entire domain of *interpersonal predicates* (transitive verbs and adjectives) instead of a specific category or grammatical feature. Different linguistic predicate categories refer to specific events or objects from different perspectives and embody different general attentional construals of the same events. Thus, the *very same event* can be construed concretely in fine grain, and specifically by using *verbs of action* (e.g., John punched David; Mary confided in Ann) as well as in coarse grain and very abstractly by using adjectives (John is aggressive; Ann is trustworthy).

Language and cognition as representational and amodal systems. The tacit treatment of language and cognition as inner representational systems leads the puzzle of inferential processes to become individual-centered. That is, language and cognition are assumed to “happen” within the individual and to remain disembodied, timeless, and subjectless. This perspective is consequently not informed about a communicative or interpersonal context, which is the chief function that language serves.

In the functional view, language is for use. And in more general terms, language use is a “design process” that extends (and is the result of) the cognitive and motivational processes of a speaker with a view to focusing the attention of a listener on some aspect of social, physical, or psychological reality. In other words, language is used in a communicative context with a view to structure the cognitions of an addressee. Obviously, this is an interactive process and not unidirectional. Seen this way, cognition can refer to (a) those processes that contribute to how a speaker shapes a communicative act (production processes); (b) those processes that contribute to how a communicative act (a message) is received by an addressee (comprehension processes); and (c) the entirety of communication itself, independent of the individual productions, as a regulator of joint action (see Hutchins, 1996).

From the perspective adopted here, language is seen as a tool to channel the direction of attention (Semin, 1998, 2000a; Tomasello, 2003). This contrasts with most of the research on the language-cognition interface, which takes a symbolic representational perspective and examines language as a property of a linguistic community that is abstract, “virtual and outside of time” (cf. Riceour, 1955). A focus on the *attention-driving function* of language views it as a tool for giving public shape to people’s goals, motives, or intentions, and thereby for directing attention to different aspects of reality. Accordingly, different linguistic devices serve different *perspectival* and *perceptual* functions. There are different versions of this view, one of which is expressed by Slobin (1987, 1996), who suggests that language may influence thought during “thinking for speaking.” In this view, we are forced to attend to specific aspects of our experiences and reality by making these aspects grammatically obligatory. Consequently, speakers of different languages are biased to attend to and encode different aspects of their experience while speaking. We argue that these differences are prevalent not only *between* but also *within* linguistic communities. Thus, the very same linguistic community has different linguistic devices that permit different aspects of the very same reality to receive attention. These differences, in turn, give rise to distinctive differences in how the very same reality is perceived, as discussed below.

Methodological concerns. Although comparisons of different linguistic communities may be revealing, they have limitations. One limitation is methodological. Because stimuli and instructions are supplied in the respective languages, it is impossible, despite back-translation, to ensure that they are identical. This is true even when verbal instructions are minimal. The question of translation commensurability remains an open question (see Boroditsky, 2001; Gumpertz & Levinson, 1996; Ji, Zhang, & Nisbett, 2004; Stapel & Semin, 2007). One needs translations of both instructions to answer questions such as whether two different languages carve the color spectrum at different places, or if they have a different concept of time. Minor variations in translations can turn out to be important determinants of whether or not languages are perceived as different.

Another problem arises in examining speakers of different linguistic communities who are tested in their native languages. Differences can be ascribed to the effect of the particular language on thought. “These studies cannot tell us whether experience with a language affects language-independent thought such as thought for other languages or thought in nonlinguistic tasks” (Boroditsky, 2001, p. 3). Finally, sample comparability across different linguistic communities can also be a source of concern. What else co-varies with linguistic differences? These concerns are not listed to deny the wealth of insights yielded by comparative research. Rather, they simply underscore the fact that the comparative approach poses a difficult task (cf. Boroditsky, Schmidt, & Phillips, 2003, p. 917).

Research that examines how language shapes perception within the same linguistic community mitigates many of the methodological concerns that arise in comparative research.

THE DOMAIN OF INTERPERSONAL PREDICATES AND THEIR FEATURES: THE LINGUISTIC CATEGORY MODEL

The Linguistic Category Model (LCM) (Semin, 2000b; Semin & Fiedler, 1988, 1991) is a classificatory approach to the domain of interpersonal language, which consists of interpersonal (transitive) verbs that are used to describe *actions* (help, punch, cheat, surprise) or psychological *states* (love, hate, abhor), and *adjectives* and *nouns* that are employed to characterize persons (extroverted, helpful, religious). The model provides a framework for identifying the nuances of people's use of interpersonal terms. It is therefore informative about how verbal behavior is driven strategically by psychological processes and communication constraints. This is done by providing a systematic model of the meanings that are peculiar to the linguistic terms (verbs, adjectives, and nouns) that we use in communicating about social events and their actors.

In this model a distinction is made between five different categories of interpersonal terms that are distinguished on the basis of a number of conventional grammatical tests and semantic contrasts (cf. Bendix, 1966; Brown & Fish, 1983; Miller & Johnson-Laird, 1976).

Descriptive action verbs are the most concrete and are used to convey the description of a single observable event and to preserve perceptual features of the event (e.g., “A punches B,” whereby punching is always achieved by means of a fist).

Interpretive action verbs also describe specific observable events. However, these verbs are more abstract in that they refer to a general class of behaviors and do not preserve the perceptual features of an action (e.g., “A hurts B”). Whereas descriptive action verbs refer to invariant physical features of an action, as in the case of *punch*, *inter alia*, interpretative action verbs serve as frames for a variety of actions that can be described by the same verb. Thus, the verb *to help* may refer to a wide variety of distinct and different actions, ranging from mouth-to-mouth resuscitation to helping an old lady cross the street.

State action verbs refer to the affective consequences of a situation-specific action (to amaze, surprise, bore, thrill, etc.). Although the conditions that give rise to the reaction specified in the verb might be supplied when asked, they are not implied in the verb itself. Thus, unlike the first two types of verbs, they refer to psychological states. State verbs also refer to unobservable emotional states (hate, love, fear, etc.) that may not be toward a specific event. There are different linguistic tests that can be used to make these distinctions (cf. Bendix, 1966; Johnson-Laird & Oatley, 1989, p. 98 ff.). In more simple terms, state verbs refer to unobservable and involuntary states (love, hate, despise). State action verbs describe reactions to observable acts of an agent of which the experiencing individual is aware, and so it generally makes little sense to say, “Mary amazed me, but I do not know why” (Johnson-Laird & Oatley, 1989, p. 99).

Finally, *adjectives* (e.g., “A is aggressive”) constitute the last and most abstract category. Adjectives generalize across specific events and objects and describe only the subject. They show a low contextual dependence and a high conceptual interdependence in their use. In other words,

the use of adjectives is governed by abstract, semantic relations rather than by the contingencies of contextual factors. The opposite is true for action verbs (e.g., Semin & Fiedler, 1988; Semin & Greenslade, 1985). These most concrete terms retain a reference to the contextual and situated features of an event.

This dimension of abstractness-concreteness of interpersonal predicates has been operationalized in terms of a number of different inferential features or properties. These inferential properties include (a) the duration of the characteristic produced by the sentence subject; (b) the ease or difficulty of confirming and disconfirming statements constructed with these predicates; (c) the temporal duration of an interpersonal event depicted by these terms; (d) how informative the sentence is about situational pressures or circumstances; and (e) the likelihood of an event recurring at a future point in time (Maass, Salvi, Arcuri, & Semin, 1989; Semin & Greenslade, 1985; Semin & Fiedler, 1988; Semin & Marsman, 1994). These variables have been shown to form a concrete-abstract dimension on which the categories of the LCM (Semin & Fiedler, 1988) are ordered systematically. Descriptive action verbs (hit, kiss) constitute the most concrete category, followed by interpretative action verbs (help, cheat), state action verbs (surprise, bore), state verbs (like, abhor), and, finally, adjectives (friendly, helpful), the most abstract predicates. Thus, one can determine how abstractly or concretely people represent an event in conversation. For example, the very same event can be described as somebody *hitting* a person, *hurting* a person (actions), *hating* a person (state), or simply as being *aggressive* (adjective).

The LCM affords the study of differential attention because the abstractness-concreteness characteristic is generic to the entire predicate class (e.g., Semin, 2000b; Semin & Fiedler, 1988, 1991). Thus, unlike more conventional and domain-specific linguistic categories that are used to examine the relationship between language and cognition such as color, the linguistic categories we assume are not domain-specific. Moreover, the inferential properties identified along the concrete-abstract dimension are also not specific to particular semantic domains. This permits the model to be useful in investigating the attention-driving function of a generic linguistic category over and above the attention-driving functions of specific semantic domains. The latter are driven by specific, declarative meanings directly implicated in a domain (e.g., gender). Such semantic fields are concerned with how vocabulary is organized into domains or areas within which lexical items interrelate, with semantic or meaning relations addressing relationships such as synonymy (e.g., affable, amiable, friendly) and antonymy (e.g., friendly versus unfriendly, good versus bad).

Thus, two features to interpersonal language are examined by the LCM. First, the *metasemantic* feature is independent of the lexical meanings that are subsumed in each of the different categories identified by the model. Second, each of the model's five categories consists of a large number of words, which serve specific descriptive functions to represent the actions taking place in an event, the states people experience, and the characteristics of the actors to an event. This *declarative* feature of language is orthogonal to the metasemantic one.

The two distinctive characteristics of interpersonal predicates—declarative and metasemantic—have different implications. The declarative ability of the predicate directs attention to the content or theme of an act, while the orthogonal, metasemantic characteristic of the same predicate shapes how fine or coarse the attention should be. If it is the case that concrete terms such as verbs of action are used predominantly in situated contexts and refer to the specific details of a social event (i.e., a fine-grain representation of the event), then their obvious function, aside from providing a semantic representation of the event, is to draw attention to the situated, local features of the event. For instance, “Jack pushed David” or “Jack helped David” draws attention to the specifics of the act, aside from drawing attention to the positive or negative act itself. In contrast, adjectives draw attention to global features that are extracted from the very same event, such as “Jack is aggressive” or “Jack is helpful”—again, aside from drawing attention to the negative or positive properties of the person.

Thus, language can drive function in two ways. First, language can draw attention to a specific subject or theme (e.g., John *helped* David; John is a *kind* person) through a semantic route. Second,

language can also drive attention in a more subtle manner through the use of specific predicate classes. Whereas concrete predicates attract attention to contextual detail, abstract predicates draw attention to the global features of an event and thus drive basic perceptual processes in different ways. This is the “secret power” of language.

Although the semantic function of language is self-evident, the latter attentional feature is novel. However, it has received substantial empirical support (Semin, 1998; Stapel & Semin, 2007).

RESEARCH EVIDENCE

The significance of the LCM from a cross-cultural perspective is that whereas reality may be cut in different ways semantically across cultural communities, predicate categories do display universality across cultural boundaries. This section reviews evidence of the *perceptual* consequences of predicate categories (e.g., interpersonal verbs versus adjectives). Do generic predicate categories lead people to perceive the same physical reality differently?

In a series of experiments, Stapel and Semin (2007) present evidence that linguistic predicate categories direct the receiver’s attention to more abstract versus concrete representations of the same event. More specifically, they show that concrete predicate classes, namely action verbs, are more likely to direct attention to specific details of an object (i.e., its local properties). In contrast, abstract predicate categories such as adjectives are more likely to draw attention to the entirety of the object (i.e., its global properties). For example, participants in one experiment were exposed to a simple film animation (chess figures in interaction) comparable to the one developed by Heider and Simmel (1944). Participants were asked to describe the events taking place in this short film clip either in terms of the behaviors they noted (concrete conditions) or the dispositional makeup of the actors (abstract conditions). Then, in an ostensibly unrelated task, participants were given a task designed by Kimchi and Palmer (1982) to assess differences in perceptual global versus specific focus. The task on each trial was to indicate which of two figures was more similar to a target figure. These two figures could be seen from either a global or a specific, local perspective. Participants who were induced to use abstract language by describing the *personality* of the chess pieces were more likely to identify the global figure as more similar to the target, as compared to those participants induced to use concrete language by describing the *behavior* of the chess pieces.

In a second experiment, participants were primed supraliminally with either *action verbs* or *adjectives* by unscrambling word jumbles into meaningful short sentences (see Srull & Wyer, 1979). Subsequently, they were given a task designed to measure category inclusiveness. In particular, they were asked to judge the degree to which weak or atypical exemplars (e.g., TV) could be regarded as a member of a general category (e.g., furniture), a measure adapted from Isen and Daubman (1984). As predicted, adjective-primed participants were found to be more inclusive in their categorizations than verb-primed participants, indicating more global (local) processing following an adjective (verb) prime.

In a third experiment, using the same priming method and with the addition of a control condition, participants performed the Framed Line Test (Kitayama, Duffy, Kawamura, & Larsen, 2003). This is a test that can examine the ability to attend to or ignore global, context-insensitive versus specific, context-sensitive information on a basic, perceptual level. The version of the test that was used consisted of a square frame, within which a vertical line was extended down from the top of the square. Participants then received another (smaller or larger) square frame. Their task was to draw a line that is *identical* to the first line in absolute length. To perform well, participants had to ignore both the first frame (when assessing the length of the line) and the second frame (when reproducing the line). As predicted, participants who were primed with the abstract predicate category performed better than those primed with concrete predicates, because they were independent, non-contextual, less situational, and tuned to be attentionally less localized.

In the final experiment, participants were subliminally primed with either action verbs or adjectives and then performed the global-specific focus task (Kimchi & Palmer, 1982). Consistent with

earlier findings, participants had a more global focus on reality when they were subliminally primed with adjectives than when they were subliminally primed with action verbs.

What is the relevance of these findings for the classic question: Does language shape cognition?

AND BACK TO THE INTERSECTION: LANGUAGE, COGNITION, AND CULTURE

Stapel and Semin's findings clearly show that generic predicate categories shape perception and provide evidence for the classic question that Whorf (1956) raised. The research demonstrates that different linguistic categories point people to different types of observations, and it underscores the functional argument that language is a tool that directs people's attention to different aspects of reality. Such an approach has the advantage of circumventing a variety of methodological problems noted earlier. In particular, the approach ascertains commensurability of instructions and comparability of samples across conditions, and it provides causal experimental evidence instead of correlational evidence. But, the question remains: What is the relevance of these types of findings for the cultural dimension of the intersection with which we started this chapter?

The relevance is highlighted by the fact that although cultures may differ along the dimension of individualism-collectivism, all cultures have languages that include both predicate types (verbs of action and adjectives). More importantly, different cultures seem to vary in the relative accessibility of these terms in their everyday use. Our linguistic habits are shaped by recurrent cultural patterns of representing, acting, feeling, interpreting, and experiencing social events. Differences in cultural practices are therefore likely to give rise to variations in recurrent features of talk. For instance, variations in how the person is culturally oriented are likely to imply different constructions of social events reflecting the types of relationships between a person and his or her social world (Markus & Kitayama, 1991; 1994). Accordingly, the cultural formation of the person can be regarded to play an important role in the linguistic shaping of the interpretation and representation of events across cultures (cf. Hofstede, 1980; Markus & Kitayama, 1991; Mauss, 1938; Semin & Rubini, 1990; Shweder & Bourne, 1982; Triandis, 1989, 1994a, 1994b, 1995; et al.). One would therefore expect differences in the accessibility of concrete and abstract predicate categories as a function of the preferential focus to a situation or a person. While the former is a focus on the interdependencies in social events, the latter entails a focus that is directed toward the dynamics of a situation that emanate from the makeup of an individual. These differences in focus across cultures should be reflected in people's relative use of concrete and abstract predicates when describing social experiences and events, as well as when describing the persons involved in such events.

In an earlier study, Semin, Görts, Nandram, and Semin-Goossens (2002) showed that concrete emotion categories implicating situated relationships are more accessible among those in a collectivist culture, namely Hindustani Surinamese. Further, emotion events are described using more concrete predicates among those in interdependent cultural contexts (Hindustani Surinamese) relative to independent cultural contexts (Dutch). The latter are more likely to access abstract emotion terms. The finding that there is more reliance on concrete linguistic categories among the Hindustani Surinamese relative to the Dutch is consistent with research suggesting that contextualizing predicates are more prominently used in attributional explanations in cultures where interdependence is more prominent (e.g., Miller, 1984; Miller & Bersoff, 1992; Morris & Peng, 1994; et al.). They also converge with the notion that the self itself is contextualized in such cultural contexts (e.g., Cousins, 1989; Markus & Kitayama, 1991). More recently, Kashima, Kashima, Kim, and Gelfand (2006) have reported similar findings in descriptions of both the self and other, as well as relationships, revealing that Westerners (Australians) are more likely to use adjectives and trait words than East Asians (Koreans), who refer to the use of adjectives and nouns as an objectifying tendency, namely, one that decontextualizes. In contrast, the use of verbs retains contextual features. The chief difference between this study and earlier work (e.g., Miller, 1984) is that Kashima et al. (2006) develop an index of objectification relying on a systematic coding of the types of predicates people used (e.g.,

different verb classes, adjectives, and nouns). This index correlated .97 with the abstraction index based on the LCM (p. 391).

In a similar vein, Maass, Karasawa, Politi, and Suga (2006) present the results of a series of comparative studies whereby Italians (independents) were found to rely more on abstract predicates (i.e., adjectives) when they were describing persons or social events from memory relative to their Japanese counterparts (interdependents), who accessed significantly more action verbs. These results raise an interesting question: Do cultures differing in the relative accessibility of predicate classes also differ in the way they perceive stimulus objects? In one of the studies described earlier (Stapel and Semin, 2007, Exp. 3), participants were less sensitive to contextual information if they were primed with abstract predicates than if they were primed with concrete predicates. Considered in the context of Maass et al.'s (2006) findings, these results suggest that a Japanese sample would outperform an American sample on the Framed Line Task should they be asked to reproduce a line that retains the same proportion relative to the square. In contrast, American participants would perform much better than their Japanese counterparts should they be asked to produce a line of equal length as the original line. Indeed, these were precisely the findings reported by Kitayama et al. (2003), who were the first to use this task to illustrate the difference between interdependents (Japanese) and independents (Americans), in that interdependents are more sensitive to contextual information compared to independents.

A PARADOX?

There is however a particular study reported in the literature that constitutes a paradox to the bold parallel that has been drawn between the within-culture studies (Stapel & Semin, 2007) and the aforementioned work on differential predicate accessibility and use between interdependent and independent cultures. The paradox is to be found in the first experiment reported by Kühnen and Oyserman (2002). In this experiment they used Gardner, Gabriel, and Lee's (1999) classic priming procedure. This task involves reading a brief paragraph about a trip to a city and circling the 19 pronouns in the text. In the independence-priming condition, the pronouns are relevant to the individual self (e.g., "I," "me," "mine"). In the interdependence-priming condition the pronouns are relevant relational self (e.g., "we," "our," "us"). Their dependent variable was the Navon (1977) task—one to the similar to the Kimchi and Palmer (1982) task used by Stapel and Semin (2007). Their results, based on a reaction time measure (rather than a classification task, as in the Stapel and Semin, 2007, study), revealed that participants primed with the interdependent task were faster in classifying globally than those primed with the independent task; the reverse trend was obtained for local classifications. This would appear to contradict Stapel and Semin's findings with the Kimchi and Palmer tasks, because the interdependent processing style is supposed to be context-sensitive and more focused on local features in a perceptual classification task—the action verb condition in the Stapel and Semin (2007) research. There is one possible explanation that could be clarified by future research—a simple account that relies on the fact that the DVs in the two studies are different, namely, a classification task with no time measurement (Stapel and Semin, 2007) and a reaction time task (Kühnen and Oyserman, 2002).^{*} There are other potential reasons that are culture based and which Lee and Semin, this volume, discuss in some detail. There is, however, another possible account that may be peculiar to the type of primes that are used in the Gardner et al. (1999) technique. It is possible that crossing *I*- or *we*-related pronouns induces two orthogonal frames. The first one may be a semantic one, which is what is assumed to be the consequence of crossing the relevant personal pronouns. *I* is the nominative singular pronoun, used by a speaker in referring to himself or herself—thus, it is a self-referent, exclusive (or singular), solitary domain that is semantically activated. This is what is activating the independent self-perspective. In contrast, the *we* prime is the nominative plural of *I*. It denotes people in general—and specifically it is used to indicate the

* I would like to express my thanks to Ying-Yi Hong for drawing my attention to this possibility.

speaker along with another or others as the subject (e.g., “*We* made it to the lecture hall on time”). It also implies (in contrast to *I*) togetherness (i.e., in harmony or accord: “*We* stand together on this issue”), or a sense of belonging (to fit into a group naturally; to be a member of a group; persons who are considered together as being related in some way; et al.). These are the presumed purely *semantic* perspectives that are induced by these primes.

However, these primes may also be activating a processing mode that may be *orthogonal* to the semantic perspectives that are induced. The reasoning behind this is the following: The first person *singular* (*I*) refers to a *concrete visualizable* entity, an identifiable person. It can be argued that the “*I*” prime condition induces a concrete and contextual processing mode. In contrast, the nominative plural (*we*) is a general reference and constitutes an *abstract* reference. The referent of “*we*” is *not as readily visualizable*, contains unidentifiable faces, and so forth. The “*we*” condition may be priming an *abstract* processing style.

In short, the *first* perspective that this priming technique may introduce may have to do with *semantic implications* and is likely to induce a number of the *descriptive properties or features* (autonomy, independence, etc., versus harmony, conformity, etc.) often identified in cultural psychological literature referring to independence and interdependence (collectivism versus individualism, etc.), selectively endorsed as a function of the prime type. Independent of the semantic aspects that are activated, a *second* orthogonal dimension may be activated, namely, two different processing modes, due to the singular-plural characteristics of the respective primes. The singular “*I*” should prime a *concrete processing mode* and/or attentional focus. In contrast, the “*we*” prime should induce an *abstract processing mode* and/or attentional focus. It is therefore possible that this classic priming procedure activates two orthogonal dimensions, one to do with semantic relationships and the second with processing mode. If this is the case, then we would have an account for the apparent paradox, although the proper answer to this hypothesis remains an empirical question.

CONCLUSIONS

Taken together, the findings regarding the attentional functions of abstract and concrete predicate classes (Stapel and Semin, 2007), the selective use of distinct linguistic categories by different cultures (Maass et al., 2006), and the cultural difference in attending to contextual information (Kitayama et al., 2003) suggest a fruitful window in our understanding of how language shapes cognition. The lessons we would like to advance and derive from these findings are as follows: First, generic features of language can drive attention to different features of a stimulus environment. Second, cultures differ in the habitual use of these same generic properties of language, which in turn gives rise to differences in the way the stimulus environment is perceived. These observations provide a first, if speculative, step in understanding the rather complex relationship between language, the cultural differences in habitual use of language, and perception.

Approaching this complex puzzle with the specific strategy adopted here holds the promise of avoiding the potential shortcomings that are always present in comparative research. It would appear to us that such a research strategy as the one outlined here may have an impact on the field by furnishing possibilities of investigating the language-cognition puzzle at a much broader level than has been done hitherto. We think that this research strategy issues an invitation to engage in a multilevel research strategy with the possible promise of integrative theory construction.

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REFERENCES

- Bendix, E. H. (1966). *Componential analysis of general vocabulary: The semantic structure of a set of verbs in English, Hindu and Japanese*. The Hague, Netherlands: Mouton.
- Boas, F. (1949). *Race, language, and culture*. New York: MacMillan.
- Boroditsky, L. (2001). Does language shape thought? Mandarin and English speakers' conceptions of time. *Cognitive Psychology*, 43, 1–22.
- Boroditsky, L., & Prinz, J. (2008). What thoughts are made of? In G. R. Semin & E. R. Smith (Eds.), *Embodied grounding: Social, cognitive, affective, and neuroscientific approaches* (pp. 91–118). New York: Cambridge University Press.
- Boroditsky, L., Schmidt, & Phillips, W. (2003). Sex, syntax, and semantics. In D. Gertner & S. Goldin-Meadow (Eds.), *Language in mind* (pp. 61–80). Cambridge, MA: MIT Press.
- Brown, R. & Fish, D. (1983). The psychological causality implicit in language. *Cognition*, 14, 237–273.
- Chiu, C.-y., Lee, K.-y., & Kwan, L. (2007). Language and culture. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology*. New York: Guilford.
- Cousins, S. (1989). Culture and selfhood in Japan and the US. *Journal of Personality and Social Psychology*, 56, 124–131.
- Gardner, W., Gabriel, S., & Lee, A. (1999). ‘I’ value freedom but ‘we’ value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321–326.
- Gertner, D. & Goldin-Meadow, G. (Eds.). *Language in mind*. Cambridge, MA: MIT Press.
- Gibson, J. J. (1977). The theory of affordances. In R. E. Shaw & J. Bransford (Eds.), *Perceiving, acting, and knowing* (pp. 67–87). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston: Houghton Mifflin.
- Glenberg, A. M. (2008). Toward the integration of bodily states, language, and action. In G.R. Semin & E.R. Smith (Eds.), *Embodied grounding: Social, cognitive, affective, and neuroscientific approaches* (pp. 43–70). New York: Cambridge University Press.
- Gumpertz, J. J., & Levinson, S. C. (1996). *Rethinking linguistic relativity*. Cambridge, UK: Cambridge University Press.
- Hauser, M. D., & Spelke, E. (2004) Evolutionary and developmental foundations of human knowledge. In M. Gazzaniga, & N. Logothetis (Eds.), *The cognitive neurosciences* (pp. 93–118). Cambridge, MA: MIT Press.
- Heider, F., & Simmel, M. (1944). An experimental study of apparent behavior. *American Journal of Psychology*, 57, 243–259.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Humboldt, W. v. (1843). Über das Entstehen der grammatischen Formen und deren Einfluß auf die Ideenentwicklung. In *Gesammelte Werke* (Vol. 3, pp. 269–306). Berlin: Reimer.
- Hutchins, E. (1996). *Cognition in the wild*. Cambridge, MA: MIT Press.
- Isen, A. M., & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology*, 47, 1206–1217.
- Ji, L. J., Zhang, Z., & Nisbett, R. E. (2004). Is it culture, or is it language? Examination of language in cross-cultural research on categorization. *Journal of Personality and Social Psychology*, 87, 57–65.
- Johnson-Laird, P. N., & Oatley, K. (1989). The language of emotions: An analysis of a semantic field. *Cognition and Emotion*, 3, 81–123.
- Kashima, Y., Kashima, E. S., Kim, Y., & Gelfand, M. (2006). Describing the social world: How is a person, a group, and a relationship described in the East and the West? *Journal of Experimental Social Psychology*, 42, 388–396.
- Kay, P. (1996). Inter-speaker relativity. In J. J. Gumpertz, & S. C. Levinson, (Eds.). *Rethinking linguistic relativity* (pp. 97–114). Cambridge, MA: Cambridge University Press.
- Kimchi, R., & Palmer, S. E., (1982). Form and texture in hierarchically constructed patterns. *Journal of Experimental Psychology: Human Perception and Performance*, 8, 521–535.
- Kitayama, S., Duffy, S., Kawamura, T., & Larsen, J. T. (2003) Perceiving an object and its context in different cultures. *Psychological Science*, 14(3), 201–207.
- Kitayama, S., Markus, H. R., & Matsumoto, H. (1995). Culture, self, and emotion: A cultural perspective on “self-conscious” emotions. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment and pride* (pp. 439–465). New York: Guilford Press.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.

- Lazarus, M. (1861). Über das Verhältnis des Einzelnen zur Gesamtheit. *Zeitschrift für Völkerpsychologie und Sprachwissenschaft*, 2, 393–453.
- Lazarus, M. & Steinthal, H. (1860). Einleitende Gedanken über Völkerpsychologie als Einladung zu für völkerpsychologie und Sprachwissenschaft. *Zeitschrift für Völkerpsychologie und Sprachwissenschaft*, 1, 1–73.
- Lenneberg, E. H. (1953). Cognition in ethnolinguistics. *Language*, 29, 463–471.
- Loftus, E. F. (1977). Shifting human color memory. *Memory and Cognition*, 5, 696–699.
- Loftus, E. F. (1979). *Eye witness testimony*. Cambridge, MA: Harvard University Press.
- Loftus, E. F., & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal Learning and Verbal Behavior*, 13, 585–589.
- Maass, A., Karasawa, M., Politi, F., & Suga, S. (2006). Do verbs and adjectives play different roles in different cultures? A cross-linguistic analysis of person representation. *Journal of Personality and Social Psychology*, 90, 734–750.
- Maass, A., Salvi, D., Arcuri, L., & Semin, G. (1989). Language use in intergroup contexts: The linguistic intergroup bias. *Journal of Personality and Social Psychology*, 57, 981–93.
- Majid, A., Bowerman, M., Kita, S., Haun, D. B. M., & Levinson, S. C. (2004). Can language restructure cognition? The case for space. *Trends in Cognitive Sciences*, 8, 108–114.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Markus, H. R., & Kitayama, S. (1994). The social construction of self and emotion: Implications for social behavior. In S. Kitayama & H. Markus (Eds.), *Culture and emotion: Empirical studies of mutual influence* (pp. 89–130). Washington, DC: American Psychological Association.
- Mauss, M. (1985/1938). A category of the human mind: The notion of person; the notion of self. (W. D. Halls, trans.). In M. Carrithers, S. Collins, & S. Lukes (Eds.), *The category of the person* (pp. 1–25). Cambridge, MA: Cambridge University Press.
- Miller, G. A., & Johnson-Laird, P. (1976). *Language and perception*. Cambridge, MA: Cambridge University Press.
- Miller, J. G. (1984). Culture and the development of everyday social explanation. *Journal of Personality and Social Psychology*, 46, 961–978.
- Miller, J. G., & Bersoff, D. M. (1992). Culture and moral judgment: How are conflicts between justice and interpersonal responsibilities resolved? *Journal of Personality and Social Psychology*, 62, 541–554.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, 67, 949–971.
- Navon, D. (1997). Forest before trees: The precedence of global features in visual perception. *Cognitive Psychology*, 9, 353–383.
- Özgen, E. (2004). Language, learning, and color perception. *Current Directions in Psychological Science*, 13, 95–98.
- Pinker, S. (1994). *The language instinct: How the mind creates language*. New York: Harper Collins.
- Regier, T., Kay, P., & Cook, R. (2005). Focal colors are universal after all. *Proceedings of the National Academy of Sciences*, 102, 8386–8391.
- Ricoeur, P. (1955). The model of the text: meaningful action considered as text. *Social Research*, 38, 530–547.
- Sapir, E. (1951) *Selected writings of Edward Sapir in language, culture, and personality*. Edited by D. G. Mandelbaum. Berkeley: California University Press.
- Semin, G. R. (1998). Cognition, language, and communication. In S. R. Fussell and R. J. Kreuz (Eds.). *Social and cognitive psychological approaches to interpersonal communication* (pp. 229–257). Hillsdale, NJ: Laurence Erlbaum.
- Semin, G. R. (2000a). Agenda 2000: Communication: Language as an implementational device for cognition. *European Journal of Social Psychology*, 30, 595–612.
- Semin, G. R. (2000b). Language as a cognitive and behavioral structuring resource: Question-answer exchanges. *European Review of Social Psychology*, 11, 75–104.
- Semin, G. R. (2001). Language and social cognition. In A. Tesser, & N. Schwarz (Eds.), *Handbook of social psychology* (Vol. 1, Intraindividual Processes) (pp. 159–180). Oxford, UK: Blackwell.
- Semin, G. R. & Greenslade, L. (1985). Differential contributions of linguistic factors to memory based ratings: Systematizing the systematic distortion hypothesis. *Journal of Personality and Social Psychology*, 49, 1713–1723.
- Semin, G. R., Görts, C., Nandram, S., & Semin-Goossens, A. (2002). Cultural perspectives on the linguistic representation of emotion and emotion events. *Cognition and Emotion*, 16, 11–28

- Semin, G. R., & Fiedler, K. (1988). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of Personality and Social Psychology*, 54, 558–568.
- Semin, G. R., & Fiedler, K. (1989). Relocating attributional phenomena within a language-cognition interface: The case of actors' and observers' perspectives. *European Journal of Social Psychology*, 19, 491–508.
- Semin, G. R., & Fiedler, K. (1991). The linguistic category model: Its bases, applications, and range. *European Review of Social Psychology*, 2, 1–30.
- Semin, G. R., & Marsman, G. J. (1994). "Multiple inference inviting properties" of interpersonal verbs: Event instigation, dispositional inference, and implicit causality. *Journal of Personality and Social Psychology*, 67, 836–849.
- Semin, G. R., & Rubini, M. (1990). Unfolding the concept of person by verbal abuse. *European Journal of Social Psychology*, 20, 463–474.
- Shweder, R. A., & Bourne, E. J. (1982). Does the concept of the person vary cross-culturally? In A. J. Marsella & G. M. White (Eds.), *Cultural conceptions of mental health and therapy* (pp. 97–137). Dordrecht, Netherlands: Riedel.
- Slobin, D. (1987). Thinking for speaking. *Proceedings of the Berkeley Linguistics Society*, 13, 435–444.
- Slobin, D. (1996). From "thought and language" to "thinking for speaking." In J. J. Gumpertz, & S. C. Levinson, (Eds.). *Rethinking linguistic relativity* (pp. 70–96). Cambridge, MA: Cambridge University Press.
- Slobin, D. (2003). Language and thought online: Cognitive consequences of linguistic relativity. In D. Gertner & S. Goldin-Meadow (Eds.), *Language in mind* (pp. 277–312). Cambridge, MA: MIT Press.
- Spelke, E. (2000). Core knowledge. *American Psychologist*, 55, 1233–1243.
- Spelke, E. (2003). What makes us smart? Core knowledge and natural language. In D. Gertner & S. Goldin-Meadow (eds.). *Language in mind* (pp. 277–312). Cambridge, MA: MIT Press.
- Srull, T.K., & Wyer, R.S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, 37, 1660–1672.
- Stahlberg, D., Sczesny, S., & Braun, F. (2001). Name your favorite musician: Effects of masculine generics and of their alternatives in German. *Journal of Language and Social Psychology*, 20, 464–469.
- Stapel, D., & Semin, G. R. (2007). The magic spell of language: Linguistic categories and their perceptual consequences. *Journal of Personality and Social Psychology*, 93, 23–33.
- Tomasello, M. (2003). The key is social cognition. In D. Gertner & S. Goldin-Meadow (Eds.), *Language in mind* (pp. 47–58). Cambridge, MA: MIT Press.
- Triandis, H. C. (1989). Cross-cultural studies of individualism and collectivism. In John Berman (Ed.), *Nebraska Symposium on Motivation*, vol. 37 (pp. 41–133). Lineta: University of Nebraska Press.
- Triandis, H. C. (1994a). *Culture and social behavior*. New York: McGraw-Hill.
- Triandis, H. C. (1994b). Major cultural syndromes and emotion. In S. Kitayama & H. Markus (Eds.), *Culture and emotion: Empirical studies of mutual influence* (pp. 285–305). Washington, DC: American Psychological Association.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Whorf, B. L. (1956). *Language, thought, and reality*. Cambridge, MA: MIT Press.

15 Culture and Emotional Expression

David Matsumoto

The relationship between culture and emotional expressions has long fascinated scholars and laypersons alike. In this chapter I review the evidence concerning this relationship and describe recent studies from my laboratory that answer major gaps in this literature. This new evidence indicates that facial expressions are universally produced in real-life, naturalistic settings when emotions are elicited, and that they are are universally recognized. Other new evidence, also reviewed in this chapter, indicates that facial expressions of emotion are universally produced by congenitally blind individuals. Taken together, I believe that facial expressions of emotion are part of the response package of an evolved, biologically based, core emotion system.

At the same time, there are many cultural differences in emotional expressions. They are produced via at least two mechanisms. The first is via cultural differences in norms of expression management and regulation as a function of social circumstances. These are known as display rules (Ekman & Friesen, 1969), which influence emotional expressions *once emotions are elicited*. This chapter reviews recent evidence from my laboratory involving a 30-country study of these rules and their implications for cultural differences in expression regulation.

The second way in which cultural differences in expressions occur involves cultural differences in the kinds of events that trigger emotions (and thus expressions) in the first place. I believe that one of the fundamental goals of enculturation is the calibration and adaptation of the universal, biologically based, core emotion system to culturally available events, so that individuals learn to have appropriate emotional reactions to events in their cultures. Because different events occur in different cultures or have different meanings in different cultures, individuals learn to have different emotional reactions across cultures, thus producing different expressions.

Thus, the evidence suggests a theoretical perspective on facial expressions of emotion that involves a biologically based, core emotion system with cultural influences on the front-end processing of emotions, via calibration and adaptation of the core emotion system to culturally available events, and cultural influences on the back-end processing of expressions through cultural display rules (Figure 15.1). The core emotion system, which humans are born with, serves as the central processor and is adapted for a multiplicity of uses within each culture. We begin our review of the literature supporting this view by examining evidence for the universal production of facial expressions of emotion.

EVIDENCE FOR THE UNIVERSAL PRODUCTION OF FACIAL EXPRESSIONS OF EMOTION

The study of emotional expressions across cultures has its roots in the work of Darwin (1872/1998), who claimed, in his principle of serviceable habits, that facial expressions are the residual actions of more complete behavioral responses. According to Darwin, all people, regardless of race or culture, possess the ability to express some emotions in exactly the same ways, primarily through their faces. Darwin wrote *The Expression of the Emotions in Man and Animals* to refute the claims of Sir Charles Bell, the leading facial anatomist of his time and a teacher of Darwin's, about how

God designed humans with unique facial muscles to express uniquely human emotions.* Relying on advances in photography and anatomy (Duchenne de Boulogne, 1862/1990), Darwin engaged in a detailed study of the muscle actions involved in emotion and concluded that the muscle actions are universal and that their precursors can be seen in the expressive behaviors of nonhuman primates and other mammals.

Darwin's work, however, drew heavy criticism, especially from noted anthropologists such as Margaret Mead and Ray Birdwhistell. They noted vast differences in expressive behavior across cultures and concluded the facial expressions could not be universal. Instead, they argued, emotional expressions had to be learned differently in every culture, and just as different cultures have different languages, they must have different languages of the face as well.

It wasn't until a century later that Paul Ekman conducted the first studies to provide systematic and reliable evidence for the universal expression and recognition of emotion, including his well-known studies in New Guinea (Ekman, 1972; Ekman & Friesen, 1971; Ekman, Sorenson, & Friesen, 1969). Ekman provided evidence that members of vastly different cultures could accurately and reliably recognize the emotions portrayed in a small set of facial expressions, including anger, disgust, fear, happiness, sadness, and surprise. He also demonstrated that people of very different cultures produced the same expressions spontaneously when emotions were actually elicited.[†]

Since Ekman's (1972) classic study, there have been at least 74 other studies that measured facial behaviors that occurred in reaction to emotionally evocative situations, which reported that the facial configurations originally posited by Darwin (1872/1998) and verified (and somewhat modified) by Ekman (Ekman, 2003; Ekman & Friesen, 1975) actually occur (Matsumoto, Keltner, Shiota, Frank, & O'Sullivan, 2008). These studies have involved a variety of emotion elicitation methodologies and participants from many different countries and cultures.

One glaring gap in this literature, however, was that all of these studies come from controlled, laboratory experiments. Critics of this literature (Feldman Barrett, 2006; Fridlund, 1997) have long questioned whether these facial expressions of emotion actually occur in real-life, naturalistic settings. These questions were entirely justified, as it is important to document that expressions occur not only in controlled, laboratory settings, but also in real-life situations.

A recent study from my laboratory closed this gap by examining the spontaneous facial expressions of emotions produced by athletes competing for a medal at the 2004 Athens Olympic

* To wit, Darwin penciled in the margin of Bell's book, "He never looked at a monkey" (Darwin, 1872/1998).

[†] Ekman's (1972) classic study involving American and Japanese participants is often misunderstood, so I describe it fully here. Participants viewed neutral and stressful films and, unbeknownst to them, their facial behaviors were recorded throughout the entire experiment. Ekman coded the last three minutes of facial behavior during the neutral films, and the entire three minutes of the last stress film clip using a modified version of Facial Affect Scoring Technique (FAST), a precursor to the Facial Action Coding System (FACS) (Ekman & Friesen, 1978). FAST identified facial configurations of six emotions: anger, disgust, fear, happiness, sadness, and surprise. But, the facial coding procedure was modified to include *all* lower face actions, rendering the coding equivalent to FACS. (The upper and middle face FAST codes already comprehensively assessed the FACS codes in these areas.) The generated codes corresponded to the facial expressions portrayed in the stimuli used in their judgment studies (Ekman, 1972; Ekman, Friesen, & Ellsworth, 1972; Ekman et al., 1969) and subsequently in the descriptions of the universal emotions in *Unmasking the Face* (Ekman & Friesen, 1975), in their stimulus set *Pictures of Facial Affect* (Ekman & Friesen, 1976), in Matsumoto and Ekman's (1988) *Japanese and Caucasian Facial Expressions of Emotion* set, and to the facial configurations identified as emotion signals in Ekman and Friesen's EMFACS (Emotion FACS) (Levenson, 2005; Matsumoto, Ekman, & Fridlund, 1991) coding system. Two sets of analyses were performed on the facial codes, one involving separate facial areas, and one involving the whole face. The rank order correlations on the facial behavior codes from the separate areas between the American and Japanese participants ranged from .72 for the eyes-lids area to .92 on the brows-forehead area. When the codes were combined into emotion-related configurations, the correlations ranged from .86 in the brows-forehead region to .96 in the lower face. Disgust, sadness, anger, and surprise were the most frequently displayed emotions, but fear and happiness were also evident. When facial codes were combined for whole face emotions, according to the theoretical rationales of Darwin and Tomkins (1962, 1963) and the empirical findings from judgment studies (below), the correlation between the Americans and the Japanese on the frequencies of whole face emotions expressed spontaneously was .88.

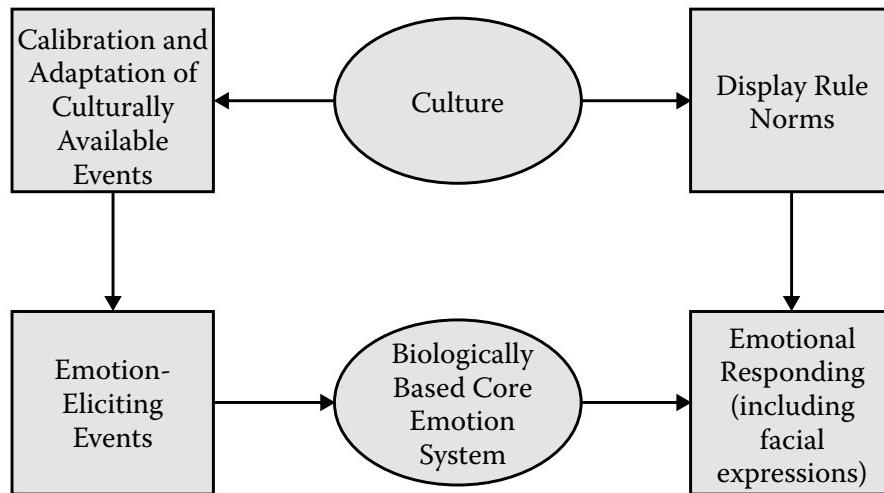


FIGURE 15.1 Cultural influences on the core emotion system.

Games (Matsumoto & Willingham, 2006). We examined the expressions of the 84 gold, silver, bronze, and 5th place winners of the judo competition at the 2004 Athens Olympic Games, who came from 35 countries and six continents. As such, they constituted a sample of the most culturally diverse individuals in whom spontaneous expressions that occurred in a highly charged, emotional event in three situations have been examined. High-speed photography was used to capture their facial reactions immediately at the end of match completion and two times during the medal ceremonies. Their expressions were coded using the Facial Action Coding System (FACS) (Ekman & Friesen, 1978), and FACS codes were then compared to the Emotion FACS (EMFACS) dictionary to obtain emotion predictions (Ekman & Friesen, 1982; Matsumoto, Ekman, & Fridlund, 1991). EMFACS identifies Action Units (AUs) that are theoretically related to facial expressions of emotion posited by Darwin (1872/1998) and later Tomkins (1962, 1963), and empirically verified by studies of spontaneous expression and judgments of expressions by Ekman and colleagues over 20 years (Ekman, Davidson, & Friesen, 1990; Ekman & Friesen, 1971; Ekman, Friesen, & Ancoli, 1980; Ekman, Friesen, & Ellsworth, 1972; Ekman, Friesen, & O'Sullivan, 1988; Ekman et al., 1969).

To get a flavor of just how emotionally evocative these situations were, it's important to have a basic understanding of judo competition. A judo match is five minutes long and starts with two contestants in a standing position, vying for a grip on each other. There are throwing techniques that originate from standing, and there are grappling techniques on the ground. Points are awarded by throwing the opponent to the ground on the back or by applying a pin, choke, or arm lock. Instant wins (the equivalent of a knockout in boxing) are awarded for clean throws to the back, pinning the opponent on the ground for 25 seconds, or when an opponent submits because of a choke or arm lock. Because instant wins can occur at any time during a match, the outcome of a match is never decided until the end of competition time or when an instant win occurs. Athletes participate in a tournament system requiring them to compete in many matches in a single day; thus, judo competition at the Olympic Games requires tremendous strength and conditioning. Because the Olympic Games occur only once every four years, winning or losing a medal here is one of the most powerful emotional experiences in the lives of these athletes.

The first set of analyses focused on the athletes' expressions produced immediately at match completion, when they knew they either won a medal or they didn't, and what medal they had won.

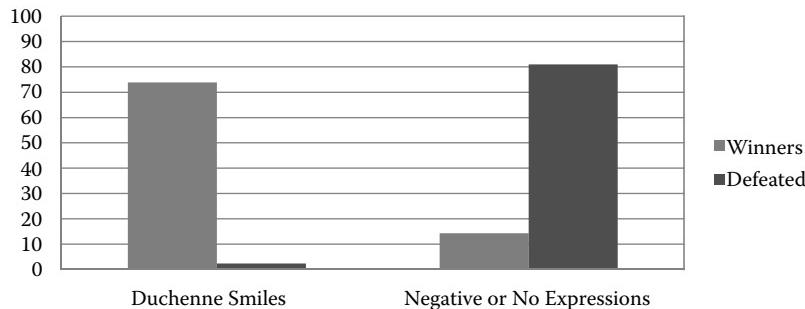


FIGURE 15.2 Proportion of athletes displaying different emotions at match completion.

There were several theoretically important questions, the first of which was whether or not emotional expressions occurred at all. Recall that no previous study had documented the existence of the universal facial expressions of emotion in a naturalistic field setting, so this very basic question was one of the primary foci of the study. In fact, of the 84 athletes photographed at match completion, there were no usable photos for six. Of the remaining 78 athletes, 67 (86%) provided at least one expression that was FACS codable. Of these, 33 (49%) provided two expressions, 13 (19%) provided three, and 5 (7%) provided four. Of the 118 expressions coded, only 4 did not produce an emotion prediction by the EMFACS dictionary. There was a considerable range of expressions, including different types of smiles and expressions of contempt, disgust, fear, and sadness. Thus, the vast majority of the athletes produced expressions at match completion, and these corresponded to emotions predicted by EMFACS.

Another important theoretical question was whether or not the expressions differentiated between victors and the defeated. The results indicated that this was indeed the case; winners (gold and bronze medalists) were much more likely to smile than the defeated, while the latter (silver medalists and 5th placers) were much more likely to display sadness, contempt, disgust, or no expressions (Figure 15.2; for illustrative purposes only, these latter expressions were classified together).

We then examined whether the distribution of expressions differed according to culture. Because of small sample sizes for individual countries, we combined them into three categories: North America/Western Europe, East Asia, and all others. No analysis, however, produced a significant cultural difference, providing evidence for the universality of the expressions.

An additional merit to the focus on medal matches is the fact that the medalists participated in the medal ceremony. Medal ceremonies occurred in the middle of the competition area, generally about 30 minutes after the completion of the last match of the day. Athletes were marched in single file, stood behind the podium, stood up onto the podium when their names were called, and received their medal and wreath from a dignitary. After all athletes had received their medals, they stood for the playing of the national anthem of the gold medalist and then gathered on the gold medal podium for a group photo. They then marched around all four sides of the field of play, stopping to greet fans and allow their photos to be taken. While the medal matches are likely to lead to relatively uninhibited expressions because of the nature of the situation and competition, the medal ceremonies are clearly a social event, produced for the purpose of a viewing audience both in the arena and on television. By focusing on the athletes in the medal matches, we had a chance to observe and measure their spontaneous behavior in two very different situations.

Despite the fact that none of the silver medalists smiled when they lost their medal match, almost all (54 of 56) of the athletes who participated in the medal ceremonies smiled when they received their medal. This finding spoke to the power of the social situation to change the nature of the expressions produced. When the specific type of smile was differentiated, however, differences emerged according to place finish. Gold and bronze medalists (i.e., those who had won their last

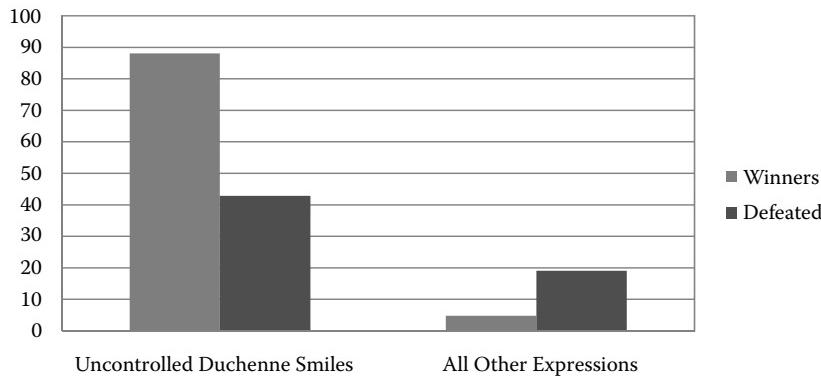


FIGURE 15.3 Proportion of athletes displaying different emotions during the medal ceremonies.

match to take a medal) were much more likely to display Duchenne smiles, and especially uncontrolled Duchenne smiles,* than were the silver medalists (who lost their medal match). The silver medalists indeed did not display felt, enjoyable emotions as much as either the gold or bronze medalists (Figure 15.3).

We tested for cultural differences in these expressions using the country classification described above. No analysis, however, produced a significant result. Thus there were no cultural differences in smiling behavior when athletes received their medals. Essentially the same results were found when athletes' expressions were examined at the second point in the medal ceremonies, when they posed on the podium after the playing of the national anthem of the gold medalist.

This study produced strong evidence that the facial expressions of emotion previously reported in laboratory studies to be universal also occur in emotionally charged, naturalistic situations. The expressions corresponded to those reported previously by Ekman (Ekman, 1972; Ekman & Friesen, 1971; Ekman et al., 1972; Ekman et al., 1969) and others (reviewed above), in Ekman and Friesen's (1975) *Unmasking the Face*, in their stimulus set *Pictures of Facial Affect* (Ekman & Friesen, 1976), and in Matsumoto and Ekman's (1988) *Japanese and Caucasian Facial Expressions of Emotion* (JACFEE) set. That there were no cultural differences in the first expressions at match completion is supportive of the universality of these expressions to occur when emotion is aroused.

The expressions also clearly differentiated between victors and the defeated. The facial signs of victory were Duchenne smiles, and in particular, its open-mouth version. These data provided further support for the view that Duchenne smiles are associated with enjoyable emotions (Ekman et al., 1990; Frank, Ekman, & Friesen, 1993; Hess, Banse, & Kappas, 1995; Keltner & Bonanno, 1997; Smith, 1995). Because no other expression was as dominant among the victors, the data also suggest that the Duchenne smile may be the only facial marker of different types of enjoyable emotions (Ekman, 2003), including *fiero*—the joy of victory. The expressions of the defeated athletes were strikingly different. Of the 42 athletes who lost their medal match, only one smiled; the others showed a variety of negative emotions, including sadness, contempt, disgust, and fear. Moreover, a not insubstantial number of them also displayed no emotion. That they did not simply show less smiling strongly suggests that their emotional experiences were substantially different than the

* Controlled smiles were those that co-occurred with buccinator (AU 14), sometimes in combination with mentalis and/or orbicularis oris (AUs 17 and 24). These lower face actions give the appearance that the expressor is making a conscious effort to control their facial behaviors and/or words, as if they are “biting their lip.” That they often occurred with both Duchenne and non-Duchenne smiles suggested that these facial actions qualified the meaning of the smile, adding information to the message of the smile beyond the signal of enjoyment.

gold and bronze medalists; thus there is not a linear decrease in smiling from gold, silver, and bronze medalists. These findings also suggest that there is no unique face of defeat. Instead, athletes appraise losses in individual ways, some eliciting sadness from the loss, others being superior over their opponents, others being disgusted at the opponent or the result, and others still being fearful of the consequences of having lost. Differences in the meaning and thus appraisals of the loss for each of the athletes, therefore, bring about different emotional reactions, which elicit different expressions (Brown & Dutton, 1995).

Finally, nearly all athletes spontaneously smiled during both periods of the medal ceremonies, probably due to the highly staged and public nature of the ceremonies. Here, athletes have had time to process the results of their performance, need to interact with dignitaries, and are pressured to put on a good face for the crowd and television. That this was true for the silver medalists, especially given the fact that *none* of them had smiled at match completion and nearly all had displayed a negative expression or no expression, demonstrating the powerful influence of social context on expressive behavior.

But, the smiles of the silver medalists were differentiated from the smiles of the gold and bronze medalists. Gold and bronze medalists displayed Duchenne smiles, while silver medalists were more likely to display controlled Duchenne smiles, non-Duchenne smiles, or smiles blended with sadness. On the podium, after receiving the medal and the national anthem of the gold medalist was played, some silver medalists did not smile at all, instead displaying contempt, sadness, or uninterpretable expressions. These data suggested that, although the silver medalists attempted to be socially appropriate by smiling during the medal ceremonies, they probably did not experience solely enjoyable emotions. Instead they were probably either experiencing negative emotions and masking or qualifying them with smiles, or were experiencing blends of enjoyable and negative emotions. One of these might be regret, which would be commensurate with the findings of Medvec, Madey, and Gilovich (1995).

Thus, this study was able to address a major limitation in the literature, demonstrating that spontaneous facial expressions of emotion are produced universally in naturalistic field settings when emotions are evoked. But do observers around the world judge these spontaneous expressions as the emotions intended and predicted by EMFACS? This question was addressed in a subsequent study.

EVIDENCE FOR THE UNIVERSAL RECOGNITION OF SPONTANEOUS FACIAL EXPRESSIONS OF EMOTION

As mentioned earlier, judgment studies of facial expressions serve as the backbone for evidence concerning the universality of emotional expressions and their recognition. Since Ekman's original universality studies, there have been many subsequent studies that have documented the universal recognition of facial expressions of emotion across different stimulus sets, investigators, expressor ethnicities and sex, and response formats (Elfenbein & Ambady, 2002; Matsumoto, 2001), as well as cross-cultural similarity in the relative agreement across expressions (Ekman et al., 1987; Matsumoto & Ekman, 1989). These findings suggest that members of different cultures judge emotional expressions on a similar basis, despite differences in facial physiognomy, expressor ethnicity or sex, or culturally prescribed rules governing the expression and perception of faces.

As with facial expression production studies, one major limitation of this area of research is that the vast bulk of judgment studies have not utilized spontaneously produced faces, a criticism levied years ago (Russell, 1994) and which is still true today. Even in monocultural studies, to date only a handful of studies have examined judgments of spontaneous expressions (Hess & Blairy, 2001; Naab & Russell, 2007; Wagner, 1990; Wagner, Lewis, Ramsay, & Krediet, 1992;

Wagner, MacDonald, & Manstead, 1986),* demonstrating that recognition rates for spontaneously produced expressions are lower than for posed expressions. This is understandable; the posed, prototypical expressions used in judgment studies (Ekman & Friesen, 1976; Matsumoto & Ekman, 1988) were created under optimal, controlled conditions involving only critical facial muscle movements theories suggested (Darwin, 1872/1998) and previous research documented (Ekman, 1993; Ekman & Friesen, 1975) to be associated with emotion signaling. In real life, however, heads are moving, decreasing the area of the face that can be judged. And because emotion signaling is just one function of facial behaviors (Ekman, 1979), facial muscles not associated with emotion are produced as well, including those related to talking, illustrating speech, regulating conversation, or conveying emblematic information. These functions can affect *signal clarity*, which should affect emotion recognition. Clearer signals should produce greater agreement in emotion recognition; less clear signals should not. And spontaneously produced facial expressions are likely to be lower in signal clarity than posed expressions because of the use of facial muscles not involved in emotion signaling and/or the use of emotion-relevant muscles in non-emotional ways.[†] If this is true, one explanation for the lower recognition rates of spontaneously produced expressions is not that emotion signaling is not universal or not occurring but that spontaneous expressions include muscle movements extraneous to emotion that occur above and beyond emotion signals. The concept of signal clarity is not new in research on nonverbal behaviors (O'Sullivan, 1982). But to our knowledge there has been no published study that operationalizes it and demonstrates its relationship to emotion judgments. We did so in this study.

Further, although one recent study involved spontaneous expressions produced by members of one cultural group judged by observers of another culture (Naab & Russell, 2007), to date there is no *cross-cultural* study involving spontaneous facial expressions of emotion judged by observers from multiple cultures. A cross-cultural comparison can serve several purposes. It can document if emotions can be recognized from spontaneous expressions at above-chance rates, and whether the range of agreement rates that previous research involving spontaneous expressions has produced occur across cultures as well. Also, if signal clarity is related to recognition rates, a cross-cultural comparison can determine if signal clarity is positively correlated with recognition rates across cultures. That is, if posed, full-face, prototypical facial expressions garner the highest recognition rates across cultures, and if emotion recognition is universal, then deviations from the prototypes should decrease signal clarity in all cultures, thereby producing cross-culturally consistent positive relationships between signal clarity and emotion recognition accuracy rates. These types of evidence can further knowledge about the boundaries of the universality of emotional expression and recognition and have important implications for theories of emotion and expression.

One of the reasons for the lack of judgment studies of spontaneous expressions is the lack of studies examining the *production* of spontaneous facial expressions of emotion by individuals of different cultures that could be used as stimuli. The study described earlier involving Olympic athletes, however, addresses this problem. In one of our latest studies (Matsumoto, Olide, Schug, Willingham, & Callan, 2007), therefore, 548 observers from four cultural groups—U.S.-born and -raised Americans, immigrants to the U.S., Japanese, and British—judged the expressions originally reported in Matsumoto and Willingham's (2006) study (the British sample judged only the expressions from Match Completion). Observers judged the emotion portrayed in each expression using a fixed-choice response task with the alternatives anger, contempt, disgust, fear, happiness, sadness, surprise, neutral, and other. We examined whether observers in all four cultural groups recognized the emotions displayed in the spontaneous expressions at above-chance levels, the existence of

* For the purpose of this review, we consider only those studies involving adult expressions. There have been studies involving judgments of spontaneous expressions of infants (Camras, Chen, Bakeman, Norris, & Cain, 2006; Yik, Meng, & Russell, 1998), but debates concerning when expressions emerge in development (Izard et al., 1995; Oster, 2005) render these data incomparable to adult data.

[†] For example, people raise their brows to illustrate their speech, often animating the verbal contents. Raised brows are also components of surprise or fear.

cultural similarities or differences in agreement rates, and the relationship between signal clarity and recognition.

First, we calculated the percentage of judges in the four samples selecting each of the emotion labels to describe each expression. To examine if observers recognized the emotions at above-chance levels, we tested the proportion of observers selecting the intended emotion label against chance using a difference in proportions test, separately for each expression; chance was set at 11.11 percent (1/9 response alternatives). When the EMFACS dictionary predicted two emotions (blends), the intended emotion labels were combined into a single category. Of the 110 expressions from Match Completion, 97, 96, 98, and 89 of them produced significant effects for the U.S., U.S. immigrants, Japan, and the U.K., respectively. Of the 103 expressions from medal ceremonies, 91, 88, and 88 of them produced significant effects for the U.S., U.S. immigrants, and Japan, respectively. Thus, observers in all countries recognized the emotions portrayed in the expressions at above-chance levels most of the time. Moreover, when an expression was not judged at significantly greater than chance levels in one culture, it was generally not significant in all cultures.

Another way to investigate if observers judged the expressions reliably is to examine the number of times the intended emotion labels were the modal response across the expressions. We tallied the number of times the emotion predicted by the EMFACS dictionary was the modal emotion label. When the EMFACS dictionary predicted two emotions (blends), the intended emotion labels were combined into a single category. Across the 110 expressions from Match Completion, the U.S., U.S. immigrants, Japanese, and British samples selected the intended emotion label 84, 87, 91, and 80 times, respectively. The proportion of times each sample selected the intended emotion label was tested using a binomial test, with chance set at 50 percent (which was conservative, given the nine response alternatives provided). Each was statistically significant. The same analyses were conducted on the 103 Medal Ceremonies expressions. The number of times the selected emotion label was the mode was 87, 86, and 82 for the Americans, U.S. immigrants, and Japanese, respectively. Each of these was also tested by binomial tests and was found statistically significant. These findings cumulatively indicated that observers in all four groups reliably judged the expressions to portray the emotions predicted by the facial expression.

In order to examine cultural similarities or differences in relative agreement rates across expressions, we then correlated the percentage of observers in the different countries selecting the intended emotion label across all expressions. These correlations were statistically significant for all pairs of samples (Table 15.1), indicating a very high level of cross-cultural agreement in emotion judgments.

Consistent with previous studies involving spontaneous expressions, percentage agreement rates for the intended emotions were lower than those reported for posed, prototypical expressions. We hypothesized that agreement rates would covary with signal clarity. To our knowledge, no measure of signal clarity in facial expressions existed; thus, we created one for use in this study, using this formula:

$$\frac{\text{# of observed Action Units associated with predicted emotion}}{\text{# of critical Action Units in the prototypical expression of that emotion} + \text{total number of observed Action Units not associated with predicted emotion}}$$

The mean signal clarity across all 110 Match Completion expressions was .53 ($SD = .19$); for Medal Ceremonies it was .65 ($SD = .19$), indicating substantial decrement in signal clarity from the prototypical expressions used in judgment studies. We computed correlations across expressions between each expression's signal clarity value and the percentage of observers in each of the four samples who selected the predicted emotion label, separately for Match Completion and Medal Ceremonies. Signal clarity was significantly correlated with these percentages for each of the four samples, $r(108) = .55, p < .001$; $r(110) = .53, p < .001$; $r(110) = .48, p < .001$; and $r(110) = .44, p < .001$, for Americans, U.S. immigrants, Japanese, and British samples, respectively, for Match Completion. The same was found for Medal Ceremonies: $r(103) = .36, p < .001$; $r(103) = .39, p < .001$; and $r(103)$

TABLE 15.1**Correlations Between the Percentage of Observers in Each Country Selecting the Intended Emotion Label Across All Expressions**

		US Immigrants	Japanese	British
Match Completion	Americans	.97 ¹	.84 ¹	.88 ¹
	US Immigrants		.87 ¹	.87 ¹
	Japanese			.74 ¹
Medal Ceremonies	Americans	.95 ¹	.91 ¹	
	US Immigrants		.92 ¹	

Note: From Matsumoto, Olide, Shug, Willingham, and Callan (2007).

¹ $p < .001$

= .36, $p < .001$, for Americans, U.S. immigrants, and Japanese, respectively. Thus the differences in percentage agreement in judgments were related to the signal clarity of the expressions for each of the samples in both conditions, and similarly for each culture.

These findings are the first to document cross-cultural agreement in emotion judgments from facial expressions of emotion spontaneously produced by individuals of different cultures. Observers in all groups recognized the emotions portrayed at above-chance levels; there was high cross-cultural agreement in the relative recognition rates across expressions; and signal clarity was associated with recognition rates across cultures. These data address a major gap in the literature concerning emotion judgments and provide additional evidence for the universality of emotion recognition in faces.

As expected, agreement rates for all four cultural groups were still generally less than that typically reported in previous judgment studies involving prototypical facial expressions (Matsumoto, 2001) and are commensurate with other studies involving spontaneous expressions (Hess & Blairy, 2001; Naab & Russell, 2007; Wagner, 1990; Wagner et al., 1992; Wagner et al., 1986). Still, they were substantially above that expected by chance, which is remarkable given the amount of noise in their signals (as evidenced by the signal clarity measures). As mentioned earlier, this noise is inevitable when studying spontaneous facial expressions, and signal clarity was significantly correlated with agreement rates to a similar degree in all four cultures. These data suggest that the lower recognition accuracy rates for spontaneous expressions reported in previous research occurred not because emotions and their expressions are not universal, but because spontaneous expressions include extraneous muscle movements that reduce the clarity of the emotion signals. If emotional expressions were not universal, or if they were expressed in some culturally unique ways (e.g., dialects), then one would expect the relationship between signal clarity and emotion recognition rates to differ across cultures; they did not. Also, the very high cross-cultural agreement in relative recognition rates across expressions argues against this interpretation.

The agreement between the observers' judged emotion labels and the emotions predicted by the EMFACS dictionary also provides some degree of independent validation of the meaning of the expressions. Given the nature of the event, Matsumoto and Willingham (2006) could not obtain self-reports of the athletes' emotional experiences during or immediately after the expressions were captured. Subsequent interviews with many of these same athletes, however, did corroborate their subjective experiences with their expressions (Willingham & Matsumoto, 2007). Also, the expressions highly differentiated between winners and losers of the medal matches, and among gold, silver, and bronze medalists (Matsumoto & Willingham, 2006). The expression differences reported by Matsumoto and Willingham (2006) corresponded to self-reports of medalists reported by others

(Medvec et al., 1995). And, the agreement rates in the judgments of the expressions by observers from four cultural groups in this study now provide another layer of independent validation of the universal meaning of the expressions. We believe, therefore, that the expressions were spontaneous signs of an underlying emotional state that were accurately and reliably judged by observers.

THE SOURCE OF UNIVERSAL FACIAL EXPRESSIONS OF EMOTION

The above studies address important gaps in the literature on culture and emotional expression, documenting that facial expressions of emotion are produced spontaneously in naturalistic field settings by people of different cultures and are reliably judged as portraying the emotions intended and predicted across cultures, even though spontaneous expressions contain additional noise because of the introduction of nonemotion-relevant facial behavior.

Universality in facial expressions of emotion, however, cannot inform us about the source of that universality. There are at least two potential such sources. One is culture constant learning, which would suggest that people all around the world learn to produce spontaneously the same facial configurations for the same emotions. To be sure, it is highly unlikely that people all around the world learn to produce on their faces the exact same muscle configurations for the same emotions; but it is at least a theoretical possibility. The second potential source is rooted in biology and evolution and suggests that the facial configurations for emotions are biologically innate and thus the same for everyone.

Several bodies of evidence strongly implicate the biological basis of this linkage. The facial expressions considered to be universal among humans have been observed in nonhuman primates (de Waal, 2003). Chimpanzees have a fully functional facial musculature that, while not as differentiated as that of humans, includes the same muscles that are used in emotional expressions (Bard, 2003; Burrows, Waller, Parr, & Bonar, 2006). (The additional facial muscles for humans are related to speech and articulation, speech illustration, conversation regulation, and the ability to eat while talking; Ekman & Friesen, 1969.) Moreover, the chimpanzee facial musculature produces many of the same appearance changes in the face as does the human musculature, according to a comparison of the human and chimpanzee versions of the FACS (Vick, Waller, Parr, Pasqualini, & Bard, 2007).

Another source of evidence for possible biological sources of emotion-expression linkages comes from studies of twins and family relatives. For example, facial behaviors of blind individuals are more concordant with their kin than with strangers (Peleg et al., 2006). And some facial expressions to emotionally provocative stimuli are more concordant among monozygotic twin pairs than dizygotic twins (Kendler et al., 2007).

A strong source of evidence for the biological basis of emotion-expression linkages comes from studies of congenitally blind individuals. Early case and anecdotal studies (Dumas, 1932; Eibl-Eibesfeldt, 1973; Freedman, 1964; Fulcher, 1942; Goodenough, 1932; Thompson, 1941) reported many similarities between blind and sighted individuals in their spontaneous facial expressions of emotion. The findings from these studies have been bolstered more recently by studies that have actually measured the spontaneous facial behaviors of blind individuals when emotions were aroused, showing similarities with the facial behaviors of sighted individuals in children (Cole, Jenkins, & Shott, 1989) and adults of many different cultures (Galati, Miceli, & Sini, 2001; Galati, Sini, Schmidt, & Tinti, 2003).

One of our most recent studies contributed to this literature by comparing the spontaneous facial expressions of congenitally blind and non-congenitally blind judo athletes at the 2004 Athens Paralympic Games with the sighted athletes reported above (Matsumoto & Willingham, in press). The athletes in this study came from 23 cultures. If congenitally blind individuals from vastly different countries and cultures produce exactly the same facial configurations of emotion in the same emotionally evocative situations, this is strong evidence for the biological basis of their source, because these individuals could not have possibly learned to produce these expressions through

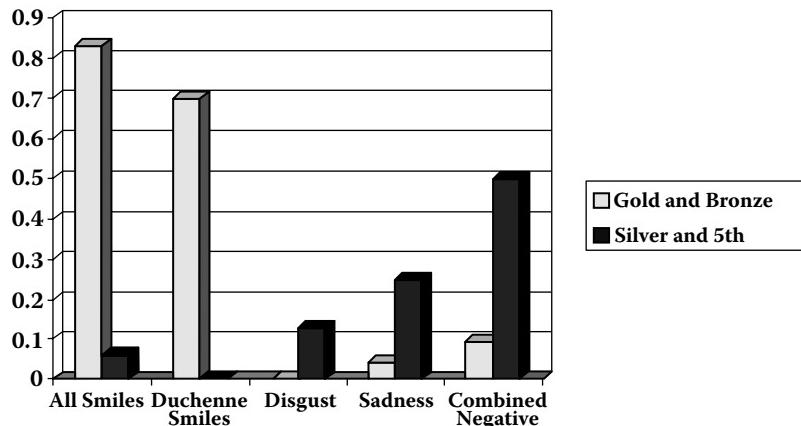


FIGURE 15.4 Proportion of occurrence of specific facial expressions at match completion. (Reprinted from Matsumoto & Willingham, in press.)

visual observation. Some may argue that these individuals may have learned to produce those expressions tactiley, but one would have to argue that they are able to feel different expressions that occur spontaneously—rapidly, automatically, and unconsciously—on themselves or others, and then be able to spontaneously produce them, and that this occurs across all cultures studied. This proposition is hardly defensible.*

This study was conducted in exactly the same manner as the study of sighted athletes reported earlier, and it found near-perfect concordance between the two studies. For example, correlations between the blind and sighted athletes individual FACS codes were $r(32) = .94, p < .01$; $r(32) = .98, p < .01$; and $r(32) = .96, p < .01$, for match completion, receiving medal, and on the podium, respectively. Moreover, the expressions of the blind athletes functioned in exactly the same ways as the sighted athletes. For example, winners displayed all types of smiles, especially Duchenne smiles, more frequently than the defeated athletes, who displayed more disgust, sadness, and combined negative emotions (Figure 15.4). When receiving the medal, winners (gold and bronze) displayed all types of smiles and Duchenne smiles more frequently than did the defeated (silver medalists), who displayed more non-Duchenne smiles (Figure 15.5).

For all of these reasons we believe that there is a biologically based emotion-expression linkage that is universal to all people of all cultures.

CULTURAL DIFFERENCES IN EMOTIONAL DISPLAYS

DISPLAY RULES

Although the research reviewed above strongly suggests that humans are born with an innate ability to spontaneously produce the same facial configurations when emotions are elicited, it is also equally clear that there are cultural differences in those displays. One of the most popular ways to characterize cultural differences in emotional displays is via the mechanism known as *display rules*. Display rules are rules learned early in life that govern how to manage or modify emotional displays depending on social circumstances (Ekman & Friesen, 1969). Depending on the situations,

* Interestingly, there have been a number of studies that have examined the ability of congenitally blind individuals to voluntarily pose facial expressions of emotion, all of them reporting difficulties in doing so and inconsistencies between what is voluntarily posed and what spontaneously occurs on the face. This difficulty is congruent with the necessity of having to see the expressions on oneself (in a mirror) or on others in spontaneous situations in order to mimic the expression when requested.

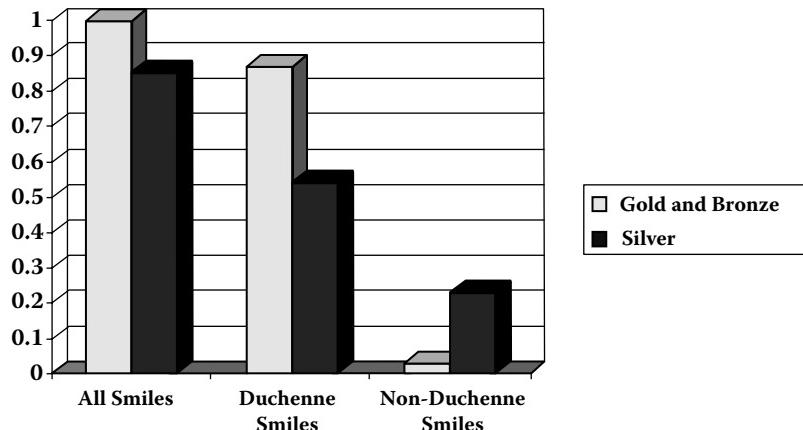


FIGURE 15.5 Proportion of occurrence of specific facial expressions when receiving medal. (Reprinted from Matsumoto & Willingham, in press.)

individuals may learn to express emotions as they are with no modification; to deamplify the expression, showing less than is felt; to amplify the expression, showing more than is felt; to neutralize the expression, showing nothing; to qualify the expression, displaying it with other emotions that comment on it; and to mask the expression, concealing it and showing another in its place.

The existence of display rules was originally documented in Ekman's (1972) classic study of Americans and Japanese students viewing stressful films when alone and subsequently with an experimenter; this study was also the first to document cultural differences in expressive displays as a function of context. In this study, the Japanese tended to smile more than the Americans when with the experimenter, despite the fact that they had showed the same negative expressions as the Americans when they were alone. The Japanese presumably did so because they had a display rule to mask their negative feelings when with higher-status individuals, whereas the Americans did not.

Over the years there has been surprisingly little research examining the actual expressive displays of individuals of different cultures in two different situational contexts (although there have been many studies examining the expressions of participants in different cultures in a single condition). Matsumoto and Kupperbusch (2001) showed that collectivistic participants masked their negative feelings to a higher status experimenter, while individualistic individuals did not, replicating Ekman's (1972) previous findings. Moreover, they extended the original display rule study by showing that collectivistic participants also masked positive feelings when with a higher status experimenter, suggesting the existence of display rules that prescribed the suppression of all emotions, not just negative ones.

The studies described earlier involving athletes at the 2004 Olympic (Matsumoto & Willingham, 2006) and Paralympic (Matsumoto & Willingham, 2007) Games also demonstrate the powerful influence of cultural display rules. In both of those studies, silver medalists did not smile at all immediately at the completion of their final match for the gold medal (because they lost that match and had to settle for silver) and instead displayed expressions of sadness, contempt, or nothing. Yet, they smiled during the subsequent medal ceremonies. The fact that almost all of the athletes smiled during the ceremonies, despite some of them having strong feelings to the contrary just minutes before, speaks to the power of the situational context to regulate behaviors and of the universal nature of that particular context (medal ceremonies in the Olympic Games). Presumably, these expressive differences occurred to regulate social behavior in a highly visible, highly emotional social context and because of the display rule to be a good loser. An interesting side note to this find-

ing is that it was an example of the possible existence of culture-constant display rules that produce universal cultural effects. Thus, culture need not always be equated with differences in expression.

Research over a decade ago began to actually measure display rules across cultures and ethnicities (Matsumoto, 1990, 1993), and our more recent studies have surveyed display rules across a wide range of cultures (Matsumoto, Takeuchi, Andayani, Kouznetsova, & Krupp, 1998; Matsumoto et al., 2008; Matsumoto, Yoo, Hirayama, & Petrova, 2005). Our most recent studies in this area (Matsumoto et al., 2008) have mapped display rules in over 30 cultures of the world and have demonstrated that collectivistic cultures are associated with a display rule norm of less expressivity overall than individualistic cultures, suggesting that overall expressive regulation for all emotions is central to the preservation of social order in these cultures (Figure 15.6). This finding is commensurate with the findings from both Ekman's (1972) original display rule study and Matsumoto and Kupperbusch's (2001) study described above. Americans and Japanese also differ on their display rules when interacting with others of higher status (Yoo et al., 2007), confirming the behavioral difference reported by Ekman (1972).

CULTURAL CALIBRATION AND ADAPTATION OF THE EMOTION SYSTEM

As mentioned above, a second way that cultures influence emotional displays is via the calibration and adaptation of the core, biologically based emotion system to culturally available events (Matsumoto et al., 2008). As people develop, they learn to have emotions associated with events in their lives, many of which are specific to their cultures (producing cultural differences) and to themselves (producing interesting individual differences). That is, although the core emotion system that produces universal facial configurations is biologically based, we view it as an entirely flexible system that is adaptable to many different contexts and events, allowing humans to have emotional reactions that color life and serve as a motivational basis for behavior.

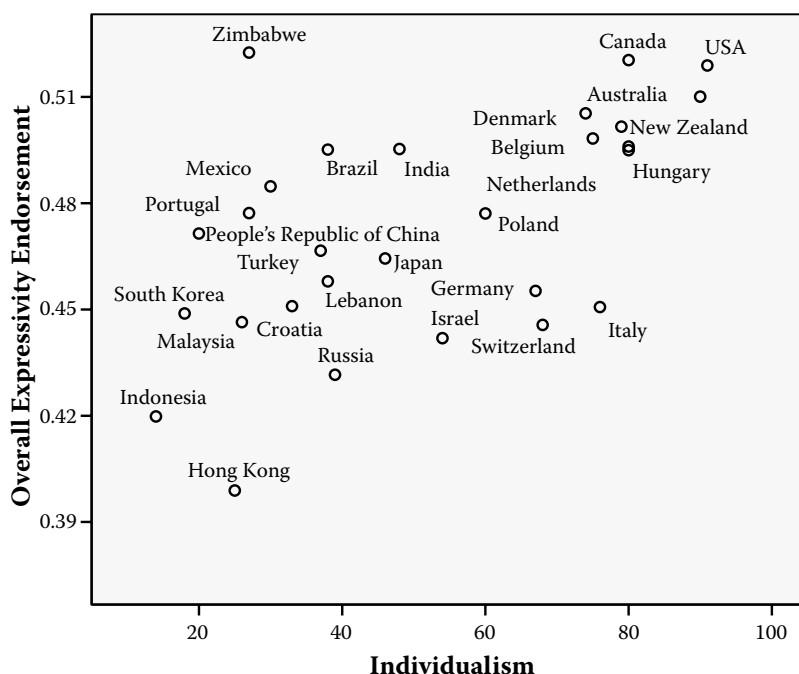


FIGURE 15.6 Graphical representation of the relationship between individualism and overall expressivity endorsement.

The cultural calibration of the emotion system allows for a multiplicity of uses. One of the functions of culture, for instance, is to ascribe meaning to the various events that occur in our lives that are not part of our evolutionary past. Driving a car, operating a computer, and watching videos, for example, are not part of our evolutionary history because cars, computers, and videos did not exist until very recently. Yet each of these kinds of events and situations can elicit emotions because cultures ascribe specific, emotion-laden meanings to them. Driving a car, for instance, is often associated with independence, freedom, mobility, and affluence. These are culturally ascribed meanings, that is, meanings not inherently part of the car and driving itself, but ones that members of a group have come to associate with driving.

If driving a car is associated with cultural connotations of independence and freedom, and such connotations are “good,” then individuals in cultures with such meanings will have the goal to attain the ability to drive, and if they achieve the goal, will be happy. In this case, the emotion of happiness could not have occurred without the culturally ascribed meanings of driving, its positive connotations, and the attainment of the goal to achieve that ability. Conversely, one’s mobility being restricted by being cut off in a lane can be associated with anger, because one’s goals are obstructed. Yet such anger-producing goal obstruction could not occur without having learned the culturally derived meanings of movement, cars, driving, obeying the law, and so forth. Interestingly, restricting movement is a technique that has been used to elicit angry responses in infants in different cultures (Camras, Oster, Campos, Miyake, & Bradshaw, 1992).

Thus, cultural differences in emotional expressions are produced because members of different cultures learn to have different emotional reactions to different culturally available events in the first place. Members of a culture with no cars or with different meanings associated with driving would have different emotional reactions, and thus expressions, to members of a culture with cars that have the meanings described above. Cultural calibration and adaptation of the core, biologically based emotion system, therefore, refers to front-end cultural influence on the core emotion system, while display rules refer to back-end influences. Both are cultural and involve the coordination and calibration of a biologically innate system.

CONCLUSION

Much has been learned about the nature of facial expressions of emotion across cultures, but so much more is still left to be done, especially about cultural differences in actual emotional displays. While there are many studies of the expressive behaviors of individuals in different cultures in a single context (e.g., laboratory situation), there are no cross-cultural studies other than those reported in this chapter that examine the actual expressive behavior of individuals from different cultures in two or more different contexts. These sorely need to be done for us to determine the degree to which context produces universal or culture-specific effects on emotional displays, and why. Both are possible, and we have just begun to do such work.

There is much more to do on display rules as well. Our multi-culture studies described above are just a start. They demonstrate gross management differences across cultures. But which cultures deamplify while other cultures neutralize or mask? In which situations? And why? And what is the degree of concordance between cultural display rules and individual differences in expressive behavior? All of these interesting yet basic questions are yet to be addressed.

And there is much to do on testing and refining the ideas described above concerning the cultural calibration and adaptation of the core emotion system. Which events are cultural, and which are not? How do they come to be associated with the emotion system, and are the linkages between them and the response system, including expressions, the same or different for different events? These are all basic yet exciting questions about the nature of emotion and culture that are yet to be explored.

Fortunately, we now have the tools and technologies to address these, and other, questions in the future. To be sure, doing behavioral research across cultures is incredibly difficult, much more so than administering questionnaires. Behavior coding is also labor intensive, and all of the caveats that

are associated with cross-cultural research are magnified in the world of behavioral studies (Van de Vijver & Matsumoto, in preparation). Thus, there are incredible challenges to this area of research in the future. But these challenges bring with them incredible opportunities and have the potential to make strong contributions to our knowledge of this very basic area of psychological science.

REFERENCES

- Bard, K. A. (2003). Development of emotional expressions in chimpanzees (*Pan troglodytes*). *Annals of the New York Academy of Sciences*, 1000, 88–90.
- Brown, J. D., & Dutton, K. A. (1995). The thrill of victory, the complexity of defeat: Self-esteem and people's emotional reactions to success and failure. *Journal of Personality and Social Psychology*, 68(4), 712–722.
- Burrows, A. M., Waller, B. M., Parr, L. A., & Bonar, C. J. (2006). Muscles of facial expression in the chimpanzee (*Pan troglodytes*): Descriptive, comparative, and phylogenetic contexts. *Journal of Anatomy*, 208, 153–167.
- Camras, L. A., Chen, Y., Bakeman, R., Norris, K., & Cain, T. R. (2006). Culture, ethnicity, and children's facial expressions: A study of European American, Mainland Chinese, Chinese American, and adopted Chinese girls. *Emotion*, 6(1), 103–114.
- Camras, L. A., Oster, H., Campos, J., Miyake, K., & Bradshaw, D. (1992). Japanese and American infants' responses to arm restraint. *Developmental Psychology*, 28, 578–583.
- Cole, P. M., Jenkins, P. A., & Shott, C. T. (1989). Spontaneous expressive control in blind and sighted children. *Child Development*, 60(3), 683–688.
- Darwin, C. (1872/1998). *The expression of the emotions in man and animals*. New York: Oxford University Press.
- de Waal, F. B. M. (2003). Darwin's legacy and the study of primate visual communication. In P. Ekman, J. Campos, R. J. Davidson, & F. B. M. De Waal (Eds.), *Emotions inside out: 130 years after Darwin's The expression of the emotions in man and animals* (pp. 7–31). New York: New York Academy of Sciences.
- Duchenne de Boulogne, G. B. (1862/1990). *The mechanism of human facial expression*. New York: Cambridge University Press.
- Dumas, F. (1932). La mimique des aveugles [Facial expression of the blind]. *Bulletin de l'Academie de Medecine*, 107, 607–610.
- Eibl-Eibesfeldt, I. (1973). The expressive behavior of the deaf-and-blind born. In M. von Cranach & I. Vine (Eds.), *Social communication and movement* (pp. 163–194). London: Academic Press.
- Ekman, P. (1971). Universal and cultural differences in facial expression of emotion. In J. R. Cole (Ed.), *Nebraska Symposium on Motivation* (Vol. 19, pp. 207–283). Lincoln: Nebraska University Press.
- Ekman, P. (1979). Facial signs: Facts, fantasies, and possibilities. In T. Sebeok (Ed.), *Sight, sound, and sense* (pp. 124–156). Bloomington: Indiana University Press.
- Ekman, P. (1993). Facial expression and emotion. *American Psychologist*, 48(4), 384–392.
- Ekman, P. (2003). *Emotions revealed*. New York: Times Books.
- Ekman, P., Davidson, R. J., & Friesen, W. V. (1990). The Duchenne smile: Emotional expression and brain physiology: II. *Journal of Personality & Social Psychology*, 58(2), 342–353.
- Ekman, P., & Friesen, W. V. (1969). The repertoire of nonverbal behavior: Categories, origins, usage, and coding. *Semiotica*, 1, 49–98.
- Ekman, P., & Friesen, W. V. (1971). Constants across culture in the face and emotion. *Journal of Personality and Social Psychology*, 17, 124–129.
- Ekman, P., & Friesen, W. V. (1975). *Unmasking the face: A guide to recognizing emotions from facial clues*. Englewood Cliffs, NJ: Prentice-Hall.
- Ekman, P., & Friesen, W. V. (1976). *Pictures of facial affect*. Palo Alto, CA: Consulting Psychologists Press.
- Ekman, P., & Friesen, W. V. (1978). *Facial action coding system: Investigator's guide*. Palo Alto, CA: Consulting Psychologists Press.
- Ekman, P., & Friesen, W. V. (1982). EMFACS. Unpublished manuscript, San Francisco.
- Ekman, P., Friesen, W. V., & Ancoli, S. (1980). Facial signs of emotional experience. *Journal of Personality and Social Psychology*, 39, 1125–1134.
- Ekman, P., Friesen, W. V., & Ellsworth, P. (1972). *Emotion in the human face: Guide-lines for research and an integration of findings*. New York: Pergamon Press.
- Ekman, P., Friesen, W. V., & O'Sullivan, M. (1988). Smiles when lying. *Journal of Personality & Social Psychology*, 54(3), 414–420.

- Ekman, P., Friesen, W. V., O'Sullivan, M., Chan, A., Diacoyanni-Tarlatzis, I., Heider, K., et al. (1987). Universals and cultural differences in the judgments of facial expressions of emotion. *Journal of Personality & Social Psychology*, 53(4), 712–717.
- Ekman, P., Sorenson, E. R., & Friesen, W. V. (1969). Pancultural elements in facial displays of emotion. *Science*, 164(3875), 86–88.
- Elfenbein, H. A., & Ambady, N. (2002). On the universality and cultural specificity of emotion recognition: A meta-analysis. *Psychological Bulletin*, 128(2), 205–235.
- Feldman Barrett, L. (2006). Solving the emotion paradox: Categorization and the experience of emotion. *Personality and Social Psychology Review*, 10, 20–46.
- Frank, M. G., Ekman, P., & Friesen, W. V. (1993). Behavioral markers and recognizability of the smile of enjoyment. *Journal of Personality & Social Psychology*, 64(1), 83–93.
- Freedman, D. G. (1964). Smiling in blind infants and the issue of innate versus acquired. *Journal of Child Psychology and Psychiatry*, 5, 171–184.
- Fridlund, A. (1997). The new ethology of human facial expressions. In J. A. Russell & J. M. Fernandez-Dols (Eds.), *The psychology of facial expression* (pp. 102–129). Cambridge, UK: Cambridge University Press.
- Fulcher, J. S. (1942). "Voluntary" facial expression in blind and seeing children. *Archives of Psychology*, 272, 5–49.
- Galati, D., Miceli, R., & Sini, B. (2001). Judging and coding facial expression of emotions in congenitally blind children. *International Journal of Behavioral Development*, 25(3), 268–278.
- Galati, D., Sini, B., Schmidt, S., & Tinti, C. (2003). Spontaneous facial expressions in congenitally blind and sighted children aged 8–11. *Journal of Visual Impairment & Blindness*, 97(7), 418–428.
- Goodenough, F. L. (1932). Expression of emotions in a blind-deaf child. *Journal of Abnormal and Social Psychology*, 27, 328–333.
- Hess, U., Banse, R., & Kappas, A. (1995). The intensity of facial expression is determined by underlying affective states and social situations. *Journal of Personality and Social Psychology*, 69, 280–288.
- Hess, U., & Blairy, S. (2001). Facial mimicry and emotional contagion to dynamic emotional facial expressions and their influence on decoding accuracy. *International Journal of Psychophysiology*, 40, 129–141.
- Izard, C. E., Fantuzzo, C. A., Castle, J. M., Haynes, O. M., Rayias, M. F., & Putnam, P. H. (1995). The ontogeny and significance of infants' facial expressions in the first 9 months of life. *Developmental Psychology*, 31(6), 997–1013.
- Keltner, D., & Bonanno, G. A. (1997). A study of laughter and dissociation: The distinct correlates of laughter and smiling during bereavement. *Journal of Personality and Social Psychology*, 73, 687–702.
- Kandler, K. S., Halberstadt, L. J., Butera, F., Myers, J., Bouchard, T. J., & Ekman, P. (2007). *The similarity of facial expressions in response to emotion-inducing films in reared apart twins*. Manuscript currently submitted for publication.
- Levenson, R. W. (2005). FACS/EMFACS emotion predictions (computer program). Berkeley: Author, University of California.
- Matsumoto, D. (1990). Cultural similarities and differences in display rules. *Motivation & Emotion*, 14(3), 195–214.
- Matsumoto, D. (1993). Ethnic differences in affect intensity, emotion judgments, display rule attitudes, and self-reported emotional expression in an American sample. *Motivation & Emotion*, 17(2), 107–123.
- Matsumoto, D. (2001). Culture and emotion. In D. Matsumoto (Ed.), *The handbook of culture and psychology* (pp. 171–194). New York: Oxford University Press.
- Matsumoto, D., & Ekman, P. (1988). Japanese and caucasian facial expressions of emotion and neutral faces (JACFEE and JACNeuF). Available from www.paulekman.com.
- Matsumoto, D., & Ekman, P. (1989). American-Japanese cultural differences in intensity ratings of facial expressions of emotion. *Motivation & Emotion*, 13(2), 143–157.
- Matsumoto, D., Ekman, P., & Fridlund, A. (1991). Analyzing nonverbal behavior. In P. W. Dowrick (Ed.), *Practical guide to using video in the behavioral sciences* (pp. 153–165). New York: John Wiley & Sons.
- Matsumoto, D., Keltner, D., Shiota, M. N., Frank, M. G., & O'Sullivan, M. (2008). What's in a face? Facial expressions as signals of discrete emotions. In J. M. Haviland, M. Lewis & L. Feldman Barrett (Eds.), *Handbook of emotion* (pp. 211–234). New York: Guilford Press.
- Matsumoto, D., & Kupperbusch, C. (2001). Idiocentric and allocentric differences in emotional expression and experience. *Asian Journal of Social Psychology*, 4, 113–131.
- Matsumoto, D., Olide, A., Schug, J., Willingham, B., & Callan, M. (2007). Cross-cultural judgments of spontaneous facial expressions of emotion. Manuscript currently submitted for publication.

- Matsumoto, D., O'Sullivan, M., & Keltner, D. (2008). Culture and emotion: *The preservation of social order through the cultural calibration of emotion*. Manuscript submitted for publication.
- Matsumoto, D., Takeuchi, S., Andayani, S., Kouznetsova, N., & Krupp, D. (1998). The contribution of individualism-collectivism to cross-national differences in display rules. *Asian Journal of Social Psychology*, 1, 147–165.
- Matsumoto, D., & Willingham, B. (2007). Spontaneous facial expressions of emotion of congenitally and non-congenitally blind individuals. *Manuscript currently submitted for publication*.
- Matsumoto, D., & Willingham, B. (in press). Spontaneous facial expressions of emotion of congenitally and non-congenitally blind individuals. *Journal of Personality and Social Psychology*.
- Matsumoto, D., Yoo, S. H., Fontaine, J. R. J., Anguas-Wong, A. M., Arriola, M., Ataca, B., et al. (in press). Mapping expressive differences around the world: The relationship between emotional display rules and individualism v. collectivism. *Journal of Cross-Cultural Psychology*, 39(1), 55–74.
- Matsumoto, D., Yoo, S. H., Hirayama, S., & Petrova, G. (2005). Validation of an individual-level measure of display rules: The Display rule assessment inventory (DRAI). *Emotion*, 5(1), 23–40.
- Medvec, V. H., Madey, S. F., & Gilovich, T. (1995). When less is more: Counterfactual thinking and satisfaction among Olympic medalists. *Journal of Personality and Social Psychology*, 69(4), 603–610.
- Naab, P. J., & Russell, J. A. (2007). Judgments of emotion from spontaneous facial expressions of New Guineans. *Emotion*, 7(4), 736–744.
- O'Sullivan, M. (1982). Measuring the ability to recognize facial expressions of emotion. In P. Ekman (Ed.), *Emotion in the human face* (pp. 281–314). New York: Cambridge University Press.
- Oster, H. (2005). The repertoire of infant facial expressions: An ontogenetic perspective. In J. Nadel & D. Muir (Eds.), *Emotional development* (pp. 261–292). New York: Oxford University Press.
- Peleg, G., Katzir, G., Peleg, O., Kamara, M., Brodsky, L., Hel-Or, H., et al. (2006). Hereditary family signature of facial expression. *Proceedings from the National Academy of Sciences*, 103(43), 15921–15926.
- Russell, J. A. (1994). Is there universal recognition of emotion from facial expression? A review of cross-cultural studies. *Psychological Bulletin*, 115, 102–141.
- Smith, M. C. (1995). Facial expression in mild dementia of the Alzheimer type. *Behavioural Neurology*, 8, 149–156.
- Thompson, J. (1941). Development of facial expression of emotion in blind and seeing children. *Archives of Psychology*, 37, 1–47.
- Tomkins, S. S. (1962). *Affect, imagery, and consciousness* (Vol. 1: The positive affects). New York: Springer.
- Tomkins, S. S. (1963). *Affect, imagery, and consciousness* (Vol. 2: The negative affects). New York: Springer.
- Van de Vijver, F. J. R., & Matsumoto, D. (in preparation). *Cross-cultural research methods in psychology*. New York: Oxford University Press.
- Vick, S.-J., Waller, B. M., Parr, L. A., Pasqualini, M. S., & Bard, K. A. (2007). A cross species comparison of facial morphology and movement in humans and chimpanzees using the facial action coding system (FACS). *Journal of Nonverbal Behavior*, 31, 1–20.
- Wagner, H. L. (1990). The spontaneous facial expression of differential positive and negative emotions. *Motivation & Emotion*, 14, 27–43.
- Wagner, H. L., Lewis, H., Ramsay, S., & Krediet, I. (1992). Prediction of facial displays from knowledge of norms of emotional expressiveness. *Motivation & Emotion*, 16, 347–362.
- Wagner, H. L., MacDonald, C., & Manstead, A. S. R. (1986). Communication of individual emotions by spontaneous facial expressions. *Journal of Personality and Social Psychology*, 50, 737–743.
- Willingham, B., & Matsumoto, D. (2007). *The thrill of victory and the agony of defeat*. Bristol, UK: The World of Judo.
- Yik, M. S. M., Meng, Z., & Russell, J. A. (1998). Adults' freely produced emotion labels for babies spontaneous facial expressions. *Cognition and Emotion*, 12, 723–730.
- Yoo, S. H., Matsumoto, D., Altarriba, J., Bauer, L. M., De Gere, D., Friedlmeier, W., et al. (2007). *Testing Ekman and Friesen 33 years later: The display rules of American and Japanese university students*. Manuscript currently submitted for publication.

16 Cultural Dialects

Nonverbal Behavior and Person Perception

Elsie J. Wang, Negin R. Toosi, and Nalini Ambady

In our everyday interactions, we are frequently called upon to make judgments and categorizations of other individuals. When meeting someone for the first time, for example, we form an impression of that person almost instantly. These immediate judgments about other individuals are sometimes surprisingly accurate. At other times, however, our first impressions turn out to be inaccurate and can lead to misunderstandings. Research on person perception has suggested that the information we glean from others can be affected by factors such as appearance (e.g. Albright, Malloy, Dong, Kenny, & Fang, 1997; Zebrowitz & Montepare, 2005; Zebrowitz, Montepare, & Lee, 1993), stereotypes (e.g. Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006; Fiske, Cuddy, Glick, & Xu, 2002; Maddox & Gray, 2002), and culture (e.g., Ambady, Koo, Lee, & Rosenthal, 1996; Marsh, Elfenbein, & Ambady, 2003; Matsumoto, 1989, 1992). Although the role of culture in person perception has become increasingly important, given the rapid increase in globalization and cross-cultural exposure, it has been relatively underexamined. In this chapter, we review some of our experimental findings on culture and person perception in the area of nonverbal behavior, including affect and gestures. We then shift our focus to discuss trait inferences and seek to examine the effects of culture on making trait inferences based on external cues.

NONVERBAL BEHAVIOR

Nonverbal behavior is the term used to describe behaviors that do not include spoken, written, or signed language. Nonverbal communication is a subset of nonverbal behavior and consists of the ways in which we communicate without language, whether consciously or nonconsciously. Examples of nonverbal communication include facial expressions of emotion and physical gestures, both of which are a rich source of information about an individual. In this section we will focus first on facial expressions of emotion, exploring universal aspects and cultural differences in emotion recognition across cultures. Cultural differences in emotion recognition have led to the formulation of a dialect theory of emotion, which we discuss in detail. Second, we will briefly explore the production and recognition of gestures across cultures. In both cases, we discuss the role of expertise and exposure, which influence judgmental accuracy.

EMOTION RECOGNITION

Facial expressions of emotion are ubiquitous in daily life, and the ability to decode and understand these emotions allows for successful social interactions. Researchers have long been interested in the study of emotion, resulting in an extensive body of work on understanding facial affect (e.g., Darwin 1872/1965; Ekman, 1972, 2003; Tomkins, 1962). In addition to the production and recognition of facial emotions, the universality of emotion expressions across cultures has also been widely studied (Ekman & Friesen, 1969, 1971; Izard, 1977). Early research investigating constants for

emotion across cultures found comparable judgment for emotions between members of a preliterate culture and members from a literate Western culture, suggesting that the facial behavior associated with emotion is not culture specific or language bound (Ekman & Friesen, 1971). Other cross-cultural research has demonstrated universal recognition of facial expressions from literate cultures (Boucher & Carlson, 1980; Ekman, 1972). Thus, these studies have found evidence of similarity in emotion judgments between cultures, leading to the theoretical model positing the universality of emotional expression and recognition (Ekman & Friesen, 1971; Ekman, 1972; and see Matsumoto's chapter in this volume).

Most of these studies on the cross-cultural expression and understanding of emotion, however, did not seek to investigate whether there were any differences across cultures, "because the researchers were interested at that time in exploring agreement, not disagreement" (Matsumoto & Assar, 1992, p. 86). Despite outstanding support for the universality of emotions, more recent research has demonstrated that cross-cultural differences in the recognition of emotions do indeed exist (e.g., Elfenbein & Ambady, 2003a).

One explanation for cultural differences in emotion recognition suggests that these differences are due to different display and decoding rules between cultures. In some cultures, for example, it may be considered inappropriate to reveal anger in public, or impolite to acknowledge another person's sadness. These rules regulate the social norms regarding the appropriateness of emotion displays, and as a result, affect the identification of emotional expressions (Ekman, 1972; Matsumoto, 1989, 1992). Cultural differences in emotion recognition have also been attributed to differences in language. The words used to describe particular emotions vary in both intensity and meaning across cultures, and some languages may be better at expressing emotional concepts than others (Harre, 1986; Matsumoto & Assar, 1992; Mesquita, Frijda, & Scherer, 1997). A final explanation for cultural differences in emotion recognition centers on the familiarity among members of a particular cultural group with their cultural displays, leading to an advantage in recognizing the emotions of in-group members. This explanation of familiarity suggests that the cultural differences we observe may result from stylistic differences across cultures rather than social pressures or norms (Elfenbein & Ambady, 2002b).

An in-group advantage has been demonstrated in emotion recognition, such that individuals better recognize emotional expressions displayed by members of their own culture than by members of other cultures (c.f., Elfenbein & Ambady, 2002a, 2003a; Elfenbein, Mandal, Ambady, Harizuka, & Kumar, 2002). This in-group advantage has been shown across many different studies and cultures in a meta analysis (Elfenbein & Ambady, 2002a). Results revealed that although emotions were universally recognized at above-chance levels, there was an increase in accuracy when judging emotional expressions for members of a cultural in-group. Results from the meta-analysis suggest that display and decoding rules do not fully explain cultural variation in emotion recognition. In addition, the findings suggest that there indeed may be linguistic and conceptual factors contributing to the increased accuracy in the recognition of in-group emotions.

The finding of an in-group advantage in emotion recognition suggests that cultural differences in emotion expression might be a result of different cultural "dialects" prevailing within the "more universal grammar of emotion" (Tomkins & McCarter, 1964, p. 127). Perhaps the cultural differences leading to an in-group advantage are contained in the emotional expressions themselves. A dialect theory suggests that along with a universal language of emotion, there may also be cultural dialects that are exhibited in the subtle differences in how emotions are expressed between cultures, and that these cultural dialects go beyond cultural norms or display rules dictating when and how to display emotion (Elfenbein & Ambady, 2003a).

Support for the dialect theory of communicating emotion can be found in a recent study examining the expression and recognition of posed facial expressions (Elfenbein, Beaupré, Lévesque, & Hess 2007). In the study, individuals from the Canadian province of Quebec and the west-central African country of Gabon were asked to pose for a set of emotional expressions. These emotional expressions from both cultural groups were later coded, and results showed reliable cultural

differences, such that dialects emerged in the activation of facial muscles for the same posed emotions. In a second part of the study, both standardized faces designed to eliminate dialects and the nonstandardized posed expressions from the previous study were shown to another group of participants. The results of the second study showed an in-group advantage for emotion recognition of the nonstandardized emotion expressions. Taken together, these findings provide support for the dialect theory of emotions, highlighting the subtle differences in the expression of emotions that occur between different cultures.

Extending the linguistic analogy, we also have evidence of nonverbal “accents,” arising from subtle cultural variations in expressiveness. In a study investigating facial emotion recognition, Marsh and colleagues (2003) found that American participants were able to successfully identify Japanese nationals from Japanese Americans in standardized images of emotional expressions. These results suggest that although facial expressions of emotion may fall under basic universal prototypes, subtle cultural differences exist in the appearance of these emotions that can convey cues as to nationality and culture, beyond physiognomic and other static features.

Fluency in reading nonverbal dialects arises from exposure. In the previously mentioned meta-analysis, the in-group advantage was found to be smaller for groups with greater levels of exposure to one another (Elfenbein & Ambady, 2002a). Increased familiarity and greater cultural contact is also associated with better emotion recognition (Elfenbein & Ambady, 2003b). In the first of two experiments, Elfenbein and Ambady examined emotion recognition for Chinese and American participants who differed in their level of cultural exposure to China and the U.S. (Chinese in China, recent Chinese immigrants to the U.S., second-generation Chinese immigrants born in the U.S., and non-Chinese U.S. citizens). Findings showed that increased cultural exposure led to greater speed and accuracy in the recognition of emotions. The second experiment replicated the cultural exposure effects for Tibetans living in China and Africans living in the U.S. Tibetans living in China were more accurate at identifying facial expressions of emotions for Chinese targets than for American targets, and Africans living in America showed the reverse pattern, thus demonstrating the role of exposure in improving accuracy of emotion recognition.

GESTURES

Gestures are a type of nonverbal behavior that can be produced with or without speech. Co-verbal behaviors, such as hand movements made during conversation, normally occur during speech and can serve as cross-modal primes that aid in the retrieval of words from lexical memory (Krauss, 1998; Krauss & Chiu, 1997). In contrast, symbolic gestures are often produced silently and can be understood without accompanying speech (Ekman & Friesen, 1969). These types of gestures, also known as emblems, serve to further the shared understanding of concepts and are the focus of this section.

Cultural differences in gestures have been widely documented, and the meaning of symbolic gestures can differ from one culture to another. For example, in American culture, giving another individual the “thumbs-up” gesture helps to communicate success or approval. However, the same “thumbs-up” sign could be interpreted as a very rude gesture in Persian culture. These differences suggest that symbolic gestures are not universal and can be culture specific (Archer, 1997; Kendon, 1992). The symbolic gestures used by specific cultures can seem “completely arbitrary unless one knows the culturally specific code on which they are modeled” (Poortinga, Schoots, & van de Koppel, 1993, p. 42). As a result, it is not surprising that research examining cross-cultural differences in gestures has demonstrated an in-group advantage for the recognition of gestures displayed by cultural in-group members (Wolfgang & Wolofsky, 1991).

As in the case of emotion, cultural exposure affects fluency in understanding gestures, indicating effects of nonverbal dialects. In an effort to examine the relationship between cultural adjustment and gesture recognition, Molinsky, Krabbenhoft, Ambady, and Choi (2005) developed the “gesture recognition task” to assess the ability of native and non-native individuals to distinguish between real and fake gestures. Those who performed better on the recognition task had spent more time within the

foreign setting, rated themselves as high on intercultural communication competence, and were rated by natives as more interculturally competent. Findings also showed that performance on the gesture recognition task was positively associated with the level of perceived motivation to learn about the foreign culture. These results suggest that cultural adaptation and adjustment play an important role in the learning of culture-bound gestures and can be influenced by an individual's motivation.

Cross-cultural research on nonverbal accents has been extended to include gestures in addition to facial expressions of emotion. Specifically, Marsh, Elfenbein, and Ambady (2007) found that American participants who were asked to view images of American and Australian nationals walking or waving in greeting were able to accurately determine the nationalities of the targets. In the study, individuals were videotaped while performing simple behaviors such as walking across a room or facing the camera while waving hello as though greeting a person. Photographic stills were captured from the video showing the target individual in midstride or with their hand at the apex of the wave. These images provided sufficient information to allow participants to identify target nationality at above-chance levels. Because using the hand to wave in greeting is a widely prevalent gesture, the findings of the study suggest that the phenomena of nonverbal accents extend beyond the face and include other social behaviors. Thus, it is possible that many behaviors that convey social information can be subtly and distinctively accented.

Furthermore, the accuracy of nationality judgments correlated with the extent to which targets were perceived to conform to cultural stereotypes. In addition to distinguishing between nationalities, participants also distinguished Americans and Australians in terms of how targets displayed personality traits that corresponded with group stereotypes (i.e., Americans appear more dominant and Australians appear more likeable). When seen walking, Americans were rated as more dominant than Australians. When waving, Australians were perceived as more likeable than Americans. The traits associated with these actions may provide information about social group membership. In fact, analyses showed that the more likeable and less dominant Australians were perceived, the more accurately their nationality was judged. The reverse was not true for Americans, suggesting that these cultural stereotypes may be used primarily in distinguishing out-group members (Marsh et al., 2007). In sum, there appears to be a complex relationship between cultural differences, nonverbal behavior, and stereotypes.

The interpretation and understanding of gestures across cultures depends heavily on the amount of exposure one has to that particular culture. Cultural exposure can help facilitate the acquisition of knowledge that is oftentimes required to discern gestures or other social information. It also appears that the recognition of gestures across cultures supports the dialect theory, suggesting that nonverbal accents exist not only for emotional expressions but for other forms of nonverbal behaviors as well. Taken together, these findings speak to the importance of culture in everyday, ongoing person perception.

TRAIT INFERENCES

In addition to making judgments about people's emotional states or gestures, we also make judgments about their personality traits from appearance and nonverbal behavior. In this section, we will focus on cultural influences on first impressions, judgments that are made from brief impressions or "thin slice" judgments of others (Ambady, Bernieri, & Richeson, 1995).

To study these instantaneous inferences, researchers have developed a number of different experimental paradigms. In one such paradigm, participants are exposed to photographs, voice recordings, point-light or biological motion displays, and other limited stimuli, and are asked to make trait ratings. Another example is the zero-acquaintance task, a brief real-life interaction. In the zero-acquaintance task, participants are tested in groups and asked to provide trait ratings for each of the other group members, without speaking to each other (e.g., Kenny, 1991; Kenny, Albright, Malloy, & Kashy, 1994). The majority of work on person perception in trait inferences has focused on consensus—that is, the degree to which judges agree in their ratings of a target's traits, rather than

accuracy in predicting behavior. To examine the effects of culture on trait perception, trait inferences made by judges from different cultures are compared. The extent to which these inferences converge or diverge allows us to investigate how people interpret the same external cues differently based on cultural values.

In the following sections we will examine research on trait inferences relating to warmth, attractiveness, and power. We will discuss similarities and differences across cultures in how external cues such as facial maturity, age, and vocal qualities are interpreted to form first impressions on these traits and others. We will also explore potential outcomes of these cultural similarities and differences.

WARMTH

Trait inferences of likeability, sociability, agreeableness, extraversion, and trustworthiness are among the most central to interpersonal interactions. These traits, which we group under the concept of warmth in person perception, seem to be especially influenced by facial expressions and attractiveness of features.

Albright and colleagues (1997) explored cross-cultural consensus in a number of trait judgments made by American and Chinese participants. They found that the variables associated with extraversion and agreeableness showed the most consensus across both groups of participants. Chinese and American judges agreed on how sociable, active, good natured, honest, and optimistic the targets appeared, whether Chinese or American. This supports earlier findings that ratings of extraversion tend to show the most consensus across groups (Ambady, Hallahan, & Rosenthal, 1995; Levesque & Kenny, 1993).

Furthermore, in the Albright et al. (1997) study, the experimenters asked participants to provide ratings of external cues including neatness of dress, smiling, eye contact, and attractiveness. Of these external cues, smiling and attractiveness were found to be highly correlated with trait ratings of extraversion and agreeableness for Americans' ratings of Chinese targets and Chinese' ratings of Americans.

ATTRACTIVENESS

While attractiveness can be considered more of an external cue than a personality trait, it holds a special place in the literature because of its influence on other judgments. Research on the physical attractiveness stereotype has demonstrated that attractive people are also presumed to have other positive attributes—especially in terms of social competence (Eagly, Ashmore, Makhijani, & Longo, 1991; Shaffer, Crepaz, & Sun, 2000; Wheeler & Kim, 1997). Many studies suggest strong cross-cultural agreement in judgments of attractiveness. Consensus in attractiveness ratings has been found for Japanese and American judges rating Japanese and American faces (Matsumoto & Kudoh, 1993); American and native residents of St. Croix rating White Americans (Maret & Harling, 1985); Chinese, Indian, and English judges rating Greek faces (Thakerar & Iwawaki, 1979); Whites, Blacks, and Chinese judges rating White and Chinese faces (Bernstein, Tsai-Ding, & McLelland, 1982); and Asian, Latino, and American Black and White judges rating female faces from Asian, Black, Latino, and White backgrounds (Cunningham, Roberts, Barbee, Druen, & Wu, 1995).

This cross-cultural consensus on what makes a face attractive suggests a universal ideal of attractiveness. Whether this is due to common evolutionary influences or to the effects of specific standards of beauty being instilled across different cultures through colonialism, political influence, and mass media is unclear (for more on this topic, see Fink & Penton-Voak, 2002; Kaw, 1993; Maddox, 2004; Rhodes & Zebrowitz, 2002).

The external cue of attractiveness is associated with personality traits, such that more attractive people often receive higher ratings on other positive characteristics. In the previously described study of trait inferences conducted by Albright and colleagues (1997), cross-cultural ratings of

attractiveness for Chinese and American targets were significantly correlated with ratings on traits associated with extraversion, agreeableness, conscientiousness, and intelligence.

However, other researchers argue that there are cultural differences in the specific traits associated with attractiveness, depending on which traits are valued in each culture. Wheeler and Kim (1997) found that Korean raters provided different character attributions for attractive Korean faces than Americans rating American faces. While Americans would rate attractive faces as higher in personal dominance and potency, Koreans associated attractiveness with higher levels of integrity and concern for others. Shaffer et al. (2000) followed up on this work by asking Taiwanese and American participants to rate attractive and unattractive faces from both cultures. The faces were rated on qualities that reflected communal and individualistic values. Results showed that participants from both cultures rated attractive faces more positively, but there were differences in attributions of specific qualities. For example, American participants associated attractiveness in American faces more strongly with positive individualistic attributes than with communal attributes, but they associated attractive Taiwanese faces more strongly with communal attributes. Thus, the pattern of American ratings depended on the culture of the target. On the other hand, Taiwanese participants associated attractiveness for both groups with more positive communal and individualistic traits. A closer examination showed that the Taiwanese participants who rated themselves as more traditional attributed more communal traits to attractive Taiwanese targets than did participants who rated themselves as more modernized, but both groups still attributed positive individualistic traits more to attractive faces (Shaffer et al., 2000).

These findings suggest that while there are similarities and cultural differences in the standards people use to make trait attributions based on attractiveness, there exists a remarkable influence of cross-cultural exposure on these processes.

POWER

Personality traits associated with the concept of power, such as dominance and competence, have also been a major topic of study. Researchers have looked at cues from facial expressions and features to age-related information to try to understand what determines ratings of power.

In an early study, Keating et al. (1981) sought to examine which facial expressions convey dominance in eight countries: Thailand, Brazil, Colombia, Spain, Kenya, Zambia, West Germany, and the U.S. Participants viewed faces posed with either slightly smiling mouths or neutral ones, or displaying lowered or raised brows. When asked which faces seemed more dominant, participants from most cultures selected neutral faces (not smiling), but it was predominantly the U.S. and European samples that associated lowered brows with dominance.

The relative maturity of facial features also affects trait inferences. Low facial maturity, also known as baby-facedness, refers to features such as round faces, big eyes, high foreheads, and small chins. Zebrowitz and Montepare (2005) found that individuals who were perceived as more baby-faced were also seen as less competent than their equally attractive peers with more mature faces. In a study examining perceptions of facial maturity across cultures, McArthur and Berry (1987) found that Korean and American students agreed in their ratings of the facial maturity of target persons, and attributed more childlike psychological characteristics to the baby-faced targets than to the more mature-faced ones. They argued that this consensus may be due to factors that are analogous across all cultures and adaptive to the species. People across all cultures possess the same innate reactions to babies, and so baby-face features evoked similar responses regardless of culture.

Although responses to babies and baby-faced adults may show a universal pattern, power trait inferences based on age differ across cultures. Montepare and Zebrowitz (1993) showed point-light biological motion displays of male and female Americans from the ages of 5 to 70 to Korean and American judges. Whereas Americans' ratings of dominance showed a decrease with age, Koreans' ratings did not. This suggests that for trait inferences of dominance, age can lead to different inferences depending on the culture.

The influence of culture is also apparent in trait inferences of power and dominance made based on vocal information. Peng, Zebrowitz, and Lee (1993) studied impressions based on voices of Americans and Koreans. The voices differed in loudness, speed, and tenseness, and were rated by three different groups: Koreans in Korea, Americans in the U.S., and Koreans in the U.S. Results showed that loudness conveyed power for all judges, but inferences based on vocal rate and tenseness differed across cultures. A fast rate of speech and a relaxed tone of voice conveyed power and competence to Americans, but not to Koreans. The authors argue that because faster speech is associated with youthfulness, this difference between the two cultures may be the result of different values placed on seniority and attitudes toward older people.

The authors also examined the effects of cultural exposure by comparing the ratings made by Koreans living in the U.S. Like Americans, they associated faster speech with competence for American voices. Like Koreans but unlike Americans, they did not associate faster speech with power for American voices. For Korean voices, on the other hand, Koreans in the U.S. did associate slower speech with power. Thus, exposure to different cultural value systems does seem to alter interpretations of physical stimuli as indicators for personality traits, depending on the nature and duration of the exposure.

OUTCOMES

Across different cultures, there are universal and culturally specific aspects of how people use external cues to evaluate personality traits. These trait evaluations may also differentially predict outcomes across cultures.

Not much previous work has examined these issues, but a recent study from our laboratory explored the relationship between trait inferences across cultures and outcomes in the realm of politics. In a series of studies, American and Japanese participants rated winners and losers of races for seats in the U.S. Senate and the Japanese Diet based on their facial appearance. Participants rated the faces of candidates on facial maturity, competence, dominance, likeability, and trustworthiness. The first three variables were combined to form a new variable entitled "Power," while the latter two were combined to form a new variable entitled "Warmth." Results revealed that consensus on the ratings between the Americans and the Japanese was high, but the ascribed traits differentially predicted electoral outcomes in each culture. Winners in the U.S. Senate races were rated high on Power but low on Warmth, whereas winners of seats in the Japanese Diet were rated as high on both Power and Warmth (Rule et al., under review). These results suggest that trait attributions based on facial appearance can predict outcomes such as electoral success differentially across cultures.

In summary, the findings from cross-cultural research on trait inferences in person perception seem to indicate that while there is consensus on a number of external features, the inferences made based on these features, and the associated outcomes, may vary significantly across cultures. At the same time, the influences of cultural change and exposure on these processes remind us that culture is not static, nor are we.

CONCLUSION

Culture shapes us; it shapes our ways of understanding the world and other people at a very basic level. From expressing and identifying emotions, to decoding gestures, to inferring personality traits based on external cues, each of these has aspects that are consistent across cultures—implying that some aspects of person perception are indeed universal in scope. However, other aspects of the person perception process are guided by cultural values and beliefs. This notion is perhaps best illustrated by an anecdote from an English language instructor detailing his experience with the ubiquitous "Thai smile":

When confronting the Thai owner of a language school with administrative problems, complaints... were met by a beaming smile and little else. I took this to mean lack of concern or an attempt to trivialize or ignore the problem. I left the discussion upset and angry by what appeared to be the owner's offhand attitude to my problems. It was only later when another native speaking English teacher, with considerably more experience of Thailand, explained that a smile meant an apology and the fact that the following day all my complaints had been addressed, that I fully understood the situation. (Baker, 2003, p. 11)

In this example, Baker learns that a smile carries a broader range of meanings in Thai culture than in his own culture, and experiences firsthand how culture influences person perception. Misunderstandings may arise during initial intercultural contact, but our research suggests that increased exposure to individuals from other backgrounds increases accuracy in perception. In sum, successful person perception across cultures requires a deep and nuanced understanding of the diversity and the richness of the subtle nonverbal dialects and cultural frames of members of other cultures.

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REFERENCES

- Albright, L., Malloy, T. E., Dong, Q., Kenny, D. A., & Fang, X. (1997). Cross-cultural consensus in personality judgments. *Journal of Personality and Social Psychology*, 72, 558–569.
- Ambady, N., Bernieri, F. J., & Richeson, J. A. (1995). Toward a histology of social behavior: Judgmental accuracy from thin slices of the behavioral stream. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 32. (pp. 201–271). San Diego, CA: Academic Press.
- Ambady, N., Hallahan, M., & Rosenthal, R. (1995). On judging and being judged accurately in zero-acquaintance situations. *Journal of Personality and Social Psychology*, 69, 518–529.
- Ambady, N., Koo, J., Lee, F., & Rosenthal, R. (1996). More than words: Linguistic and nonlinguistic politeness in two cultures. *Journal of Personality and Social Psychology*, 5, 996–1011.
- Archer, D. (1997). Unspoken diversity: Cultural differences in gestures. *Qualitative Sociology*, 20, 79–105.
- Baker, W. (2003, December). Should culture be an overt component of EFL instruction outside of English speaking countries? The Thai component. *Asian EFL Journal*, 5, Article 5. Retrieved on November, 27, 2007, from http://www.asian-efl-journal.com/dec_03_sub.wb.php
- Bernstein, I. H., Tsai-Ding, L., & McClellan, P. (1982). Cross- vs. within-racial judgements of attractiveness. *Perception and Psychophysics*, 32, 495–503.
- Boucher, J. D. & Carlson, G. E. (1980). Recognition of facial expression in three cultures. *Journal of Cross-Cultural Psychology*, 11, 263–280.
- Cunningham, M. R., Roberts, A. R., Barbee, A. P., Druen, P. B., & Wu, C. (1995). “Their ideas of beauty are, on the whole, the same as ours”: Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology*, 68, 261–279.
- Darwin, C. (1965). *The expressions of the emotions in man and animals*. Chicago: University of Chicago Press. (Original work published 1872).
- Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but...: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, 110, 109–128.
- Eberhardt, J. L., Davies, P.G., Purdie-Vaughns, V. J., and Johnson, S.L. (2006). Looking deathworthy: Perceived stereotypicality of black defendants predicts capital-sentencing outcomes. *Psychological Science*, 17, 383–386.
- Ekman, P. (1972). Universals and cultural differences in facial expressions of emotion. In J. Cole (Ed.), *Nebraska symposium on motivation*. Lincoln: University of Nebraska Press.
- Ekman, P. (2003). *Emotions Revealed*. New York: Henry Holt.
- Ekman, P., & Friesen, W. V. (1969). The repertoire of nonverbal behavior: Categories, origins, usage and coding. *Semiotica*, 1, 49–98.

- Ekman, P., & Friesen, W. V. (1971). Constants across cultures in the face and emotion. *Journal of Personality and Social Psychology, 17*, 124–129.
- Elfenbein, H. A., & Ambady, N. (2002a). On the universality and cultural specificity of emotion recognition: A meta-analysis. *Psychological Bulletin, 128*, 203–235.
- Elfenbein, H. A., & Ambady, N. (2002b). Is there an in-group advantage in emotion recognition? *Psychological Bulletin, 128*, 243–249.
- Elfenbein, H. A., & Ambady, N. (2003a). When familiarity breeds accuracy: Cultural exposure and facial emotion recognition. *Journal of Personality and Social Psychology, 85*, 276–290.
- Elfenbein, H. A., & Ambady, N. (2003b). Universals and cultural differences in recognizing emotions. *Current Directions in Psychological Science, 12*, 159–164.
- Elfenbein, H. A., Beaupré, M., Lévesque, M., & Hess, U. (2007). Toward a dialect theory: Cultural differences in the expression and recognition of posed facial expressions. *Emotion, 7*, 131–146.
- Elfenbein, H. A., Mandal, M. K., Ambady, N., Harizuka, S., & Kumar, S. (2002). Cross-cultural patterns in emotion recognition: Highlighting design and analytical techniques. *Emotion, 2*, 75–84.
- Fink, B., & Penton-Voak, I. (2002). Evolutionary psychology of facial attractiveness. *Current Directions in Psychological Science, 11*, 154–158.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*, 878–902.
- Harré, R.M. (Ed.). (1986). *The social construction of emotions*. Oxford, UK: Basil Blackwell.
- Izard, C. E. (1977). The emotions and emotion constructs in personality and culture research. In R. B. Cattell, *Handbook of modern personality theory*, (pp. 496–510). New York: Wiley.
- Kaw, E. (1993). Medicalization of racial features: Asian American women and cosmetic surgery. *Medical Anthropology Quarterly, 7*, 74–89.
- Keating, C. F., Mazur, A., Segall, M. H., Cysneiros, P. G., Divale, W. T., Kilbride, J. E., et al. (1981). Culture and the perception of social dominance from facial expression. *Journal of Personality and Social Psychology, 40*, 615–626.
- Kendon, A. (1992). Some recent work from Italy on quotable gestures (emblems). *Journal of Linguistic Anthropology, 2*, 92–108.
- Kenny, D. A. (1991). A general model of consensus and accuracy in interpersonal perception. *Psychological Review, 98*, 155–163.
- Kenny, D. A., Albright, L., Malloy, T. E., & Kashy, D. A. (1994). Consensus in interpersonal perception: Acquaintance and the big five. *Psychological Bulletin, 116*, 245–258.
- Krauss, R. M. & Chiu, C.-y. (1997). Language and social behavior. In D. Gilbert, S. Fiske, & G. Lindsey (Eds.), *Handbook of social psychology*, Vol. 2. (pp. 41–88). Boston: McGraw-Hill.
- Krauss, R. M. (1998). Why do we gesture when we speak? *Current Directions in Psychological Science, 7*, 54–60.
- Lévesque, M. J., & Kenny, D. A. (1993). Accuracy of behavioral predictions at zero acquaintance: A social relations analysis. *Journal of Personality and Social Psychology, 65*, 1178–1187.
- Maddox, K. B. (2004). Perspectives on racial phenotypic bias. *Personality and Social Psychology Review, 8*, 383–401.
- Maddox, K. B. & Gray, S. A. (2002). Cognitive representations of Black Americans: Reexploring the role of skin tone. *Personality and Social Psychology Bulletin, 28*, 250–259.
- Maret, S. M., & Harling, C. A. (1985). Cross-cultural perceptions of physical attractiveness: Ratings of photographs of Whites by Cruzans and Americans. *Perceptual and Motor Skills, 60*, 163–166.
- Marsh, A. A., Elfenbein, H. A., & Ambady, N. (2003). Nonverbal “accents”: Cultural differences in facial expressions of emotion. *Psychological Science, 14*, 373–376.
- Marsh, A. A., Elfenbein, H. A., & Ambady, N. (2007). Separated by a common language: Nonverbal accents and cultural stereotypes about Americans and Australians. *Journal of Cross-Cultural Psychology, 38*, 284–300.
- Matsumoto, D. (1989). Cultural influences on the perception of emotion. *Journal of Cross-Cultural Psychology, 20*, 92–105.
- Matsumoto, D. (1992). American-Japanese cultural differences in the recognition of universal facial expressions. *Journal of Cross-Cultural Psychology, 23*, 72–84.
- Matsumoto, D., & Assar, M. (1992). The effects of language on the judgments of universal facial expressions of emotion. *Journal of Nonverbal Behavior, 16*, 85–99.

- Matsumoto, D., & Kudoh, T. (1993). American-Japanese cultural differences in attributions of personality based on smiles. *Journal of Nonverbal Behavior, 17*, 231–243.
- McArthur, L. Z., & Berry, D. S. (1987). Cross-cultural agreement in perceptions of babyfaced adults. *Journal of Cross-Cultural Psychology, 18*, 165–192.
- Mesquita, B., Frijda, N. H., & Scherer, K. R. (1997). Culture and emotion. In J. W. Berry, P. R. Dasen, & T. S. Sararwathi (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Basic processes and human development* (pp. 255–297). Boston: Allyn & Bacon.
- Molinsky, A. L., Krabbenhoft, M. A., Ambady, N., & Choi, Y. S. (2005). Cracking the nonverbal code: Intercultural competence and the diagnosis of gestures across cultures. *Journal of Cross-Cultural Psychology, 36*, 380–395.
- Montepare, J. M., & Zebrowitz, L. A. (1993). A cross-cultural comparison of impressions created by age-related variations in gait. *Journal of Nonverbal Behavior, 17*, 55–68.
- Peng, Y., Zebrowitz, L. A., & Lee, H. K. (1993). The impact of cultural background and cross-cultural experience on impressions of American and Korean male speakers. *Journal of Cross-Cultural Psychology, 24*, 203–220.
- Poortinga, Y. H., Schoots, N. H., & van de Koppel, J. M. H. (1993) The understanding of Chinese and Kurdish emblematic gestures by Dutch subjects. *International Journal of Psychology, 28*, 31–44.
- Rhodes, G., & Zebrowitz, L.A. (Eds.). (2002). *Facial attractiveness: Evolutionary, cognitive, and social perspectives*. Westport, CT: Ablex Publishing.
- Rule, N. O., Ambady, N., Adams, Jr., R. B., Ozono, H., Nakashima, S., Yoshikawa, S., et al. (under review). *Polling the face: Judgments of personality traits accurately but differentially predict electoral success across cultures*.
- Shaffer, D. R., Crepaz, N., & Sun, C.-R. (2000). Physical attractiveness stereotyping in cross-cultural perspective: Similarities and differences between Americans and Taiwanese. *Journal of Cross-Cultural Psychology, 31*, 557–582.
- Thakerar, J. N., & Iwawaki, S. (1979). Cross-cultural comparisons in interpersonal attraction of females toward males. *Journal of Social Psychology, 108*, 121–122.
- Tomkins, S. S. (1962). *Affect imagery, consciousness, Vol. 1. The positive affects*. New York: Springer.
- Tomkins, S. S., & McCarter, R. (1964). What and where are the primary affects? Some evidence for a theory. *Perceptual and Motor Skills, 18*, 119–158.
- Wheeler, L., & Kim, Y. (1997). The physical attractiveness stereotype has different content in collectivist cultures. *Personality and Social Psychology Bulletin, 23*, 795–800.
- Wolfgang, A., & Wolofsky, Z. (1991). The ability of new Canadians to decode gestures generated by Canadians of Anglo-Celtic background. *International Journal of Intercultural Relations, 15*, 47–64.
- Zebrowitz, L. A., & Montepare, J. M. (2005). Appearance does matter. *Science, 308*, 1565–1566.
- Zebrowitz, L. A., Montepare, J. M., & Lee, H. K. (1993). They don't all look alike: Individual impressions of other racial groups. *Journal of Personality and Social Psychology, 65*, 85–101.

17 Culture Through the Lens of Self-Regulatory Orientations

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One of the main divides between an individualist culture and a collectivist culture is the way in which people view the self in relation to others (Triandis, 1989). Whereas members of individualist cultures tend to view the self as autonomous and unique (i.e., they have an independent self-construal; Markus & Kitayama, 1991), members of collectivist cultures tend to view the self as inextricably and fundamentally embedded within a larger social network (i.e., they have an interdependent self-construal). The independent self-construal defines the individual in terms of characteristics that distinguish him or her from others, and is common to members of Western cultures who celebrate independence and creativity (e.g., U.S.). In contrast, the interdependent self-construal defines the individual in terms of relationships with respect to others, and is common among members of East Asian cultures (e.g., China, Japan), who value the fulfillment of obligations and responsibilities over personal desires or benefits (Markus & Kitayama, 1991; Singelis, 1994; Triandis, 1989).

While these two distinct self-construals are culturally encouraged and determined, individuals have also been shown to differ in the way they view the self within each culture (Singelis, 1994). Furthermore, these two self-schemas are thought to coexist within every individual such that a self-construal that is culturally *inconsistent* can be made temporarily more accessible by a situational context or through priming (Oyserman & Lee, 2008). Once activated, these temporarily enhanced self-construals often exert similar influences on social perception and behavior as their chronically accessible counterparts (Brewer & Gardner, 1996; Gardner, Gabriel, & Lee, 1999; Hong, Ip, Chiu, Morris, & Menon, 2001; Lee, Aaker, & Gardner, 2000; Trafimow, Triandis, & Goto, 1991).

Recent research shows that, regardless of whether they are chronically or temporarily made accessible, these alternative ways of viewing the self reflect different self-regulatory orientations. More specifically, the independent goal of distinguishing oneself from others through personal growth and accomplishments and the interdependent goal of maintaining harmony with respect to others through the fulfillment of obligations and responsibilities serve as self-guides that regulate attention, attitudes, and behaviors toward achieving different goals (Higgins, 1997). In fact, the independent and interdependent self-construals have been shown to be associated with different self-regulatory orientations. In particular, the independent goal of being positively distinct is consistent with a promotion orientation, whereas the interdependent goal of maintaining harmony within the group is consistent with a prevention orientation (Lee et al., 2000).

According to regulatory focus theory (Higgins, 1997), people are guided by their self-regulatory orientations in their goal pursuit activities to satisfy their needs for nurturance and security. Individuals with a promotion orientation strive toward growth and accomplishments. They focus on achieving their hopes and aspirations and pursue their goals with eagerness. They are sensitive to the presence and absence of positive outcomes and prefer strategies that ensure matches to their desired end-state; that is, they aim to approach gains and avoid nongains. On the other hand, individuals with a prevention orientation strive toward safety and security. They focus on fulfilling their duties and responsibilities and pursue their goals with vigilance. They are sensitive to the presence and absence of negative outcomes and prefer strategies that ensure against mismatches to their desired end-states; that is, they aim to avoid losses and approach nonlosses.

In a series of studies, Lee et al. (2000) demonstrate that individuals from an individualist culture (European Americans) whose independent self-construal is chronically more accessible, as well as Chinese whose independent self-construal is temporarily made salient, tend to be promotion-oriented; whereas individuals from a collectivist culture (Chinese from Hong Kong) whose interdependent self-construal is chronically more accessible, as well as Americans whose interdependent self-construal is temporarily made salient, tend to be prevention-oriented. Regardless of whether self-construal was operationalized through cultural orientation (North American versus East Asian), individual disposition (Singelis, 1994), or situational prime (e.g., independent—"you are playing in a tennis tournament..."; interdependent prime—"your team is playing in a tennis tournament and you are representing your team..."), research participants whose independent self-construal was more accessible were more motivated by the presence and absence of a positive outcome. In contrast, participants whose interdependent self-construal was more accessible were more motivated by the presence and absence of a negative outcome. More specifically, independents perceived an event (i.e., the final match in the tennis tournament) to be more important when they were prompted to think about winning or not winning the tournament than when they were prompted to think about losing or not losing the tournament, and the reverse was true for the interdependents.

That distinct self-construals are associated with different self-regulatory orientations has interesting implications for cross-cultural research, as it is becoming clear that the two distinct regulatory orientations represent two complex motivational systems that have a significant impact on social perception, information processing, language use, temporal perspective, motivation, and emotion, with distinct behavioral consequences. In the next sections, we will first review the consequences of the two self-regulatory systems and discuss how they may account for cultural differences in different domains. We then review the literature to show how predictions based on regulatory orientations may seem contradictory to commonly held views on cross-cultural differences in temporal perspective and perceptual processing, followed by a discussion on how these inconsistencies may be resolved.

THE PROMOTION AND PREVENTION SYSTEMS

Individuals whose independent self-construal is more accessible are likely to have a promotion orientation (Lee et al., 2000). Promotion-oriented individuals are driven by their desire for nurturance (Higgins, 1997). Their attention, attitude, and behaviors are guided by their ideal self-standards; they are more sensitive to gains and nongains rather than losses and nonlosses, and they experience cheerfulness and dejection emotions more intensely than relaxation and agitation emotions (Higgins, 1997; Lee et al., 2000). In striving toward growth and accomplishment, they are more likely to pursue maximal goals (Brendl & Higgins, 1996), and hence are more willing to adopt change (Liberman, Idson, Camacho, & Higgins, 1999) and take risks (Crowe & Higgins, 1997). They are also more concerned with guarding against errors of omission than errors of commission (Crowe & Higgins, 1997); they value speed more than accuracy (Förster, Higgins, & Bianco, 2003); and their default is action rather than inaction (Roesel, Hur, & Pennington, 1999). Further, promotion-oriented individuals tend to process information at a more abstract, global level (Förster & Higgins, 2005; Semin, Higgins, Gil de Montes, Estourget, & Valencia, 2005) and construe future events with a more distal temporal perspective (Pennington & Roesel, 2003).

In contrast, individuals whose interdependent self-construal is more accessible are likely to have a prevention orientation (Lee et al., 2000). Prevention-oriented individuals are driven by their desire for safety and security (Higgins, 1997). Their attention, attitude, and behaviors are guided by their ought self-standards; they are more sensitive to losses and nonlosses rather than gains and nongains, and they experience relaxation and agitation emotions more intensely than cheerfulness and dejection emotions (Higgins, 1997; Lee et al., 2000). In striving toward safety and security, they are more likely to pursue minimal goals (Brendl & Higgins, 1996); hence they prefer the status quo (Liberman et al., 1999) and are less willing to take risks (Crowe & Higgins, 1997). They are

also more concerned with guarding against errors of commission than errors of omission (Crowe & Higgins, 1997); they prefer accuracy over speed (Förster et al., 2003), and their default is inaction rather than action (Roesel, Hur, & Pennington, 1999). Further, prevention-oriented individuals tend to process information at a more concrete, local level (Förster & Higgins, 2005; Semin et al., 2005) and construe future events with a more proximal temporal perspective (Pennington & Roesel, 2003). Indeed, empirical studies examining cross-cultural similarities and differences present results that are consistent with the characteristics of these two motivational systems. We review and summarize some of these findings in the next sections.

BENEFITS AND VALUES

Given the relationship between self-construal and regulatory orientation (Lee et al., 2000), it is only natural that there is significant overlap between the values upheld by members of individualist versus collectivist cultures and those that are deemed important by individuals with distinct regulatory orientations. The correlation between cultural values and regulatory orientations becomes evident when people with different cultural backgrounds are observed to be differentially persuaded by appeals that highlight promotion versus prevention benefits.

To illustrate, Aaker and Lee (2001) show that individuals with a dominant independent self-construal are more persuaded by promotion- (versus prevention-) focused information that addresses the concerns of growth and achievement (e.g., getting energized), whereas those with a dominant interdependent self-construal are more persuaded by prevention- (versus promotion-) focused information that addresses the concerns of safety and security (e.g., preventing clogged arteries). Similarly, Chen, Ng, and Rao (2005) find that consumers with a dominant independent self-construal are more willing to pay for expedited delivery of a product when they are presented with a promotion-framed message that emphasizes gains (e.g., to enjoy a product early), whereas those with a dominant interdependent self-construal are more willing to pay for expedited delivery when presented with a prevention-framed message that highlights nonlosses (e.g., avoid delay in receiving the product). These patterns of results were observed irrespective of whether self-construal was situationally primed or culturally nurtured (Aaker & Lee, 2001; Agrawal & Maheswaran, 2005; Chen et al., 2005).

More recent research suggests that people are more likely to selectively process information consistent with their regulatory orientation when they are not expending cognitive efforts in information processing (Briley & Aaker, 2006; Wang & Lee, 2006). For example, Briley and Aaker (2006) demonstrate that participants who were culturally inclined to have a promotion (North Americans) or prevention (Chinese) orientation held more favorable attitudes toward those products that addressed their regulatory concerns when they were asked to provide their initial reactions or when they evaluated the products under cognitive load or time pressure. Participants across the two cultures did not differ in their evaluation of the products when they were asked to make deliberated evaluations or when they were able to expend cognitive resources on the task.

Involvement seems to have a different effect on judgment when individuals are primed with a culturally inconsistent self-construal. More specifically, Agrawal and Maheswaran (2005) manipulated brand commitment among participants from an individualist (U.S.) and a collectivist (Nepal) culture and primed them with either an independent or interdependent self-construal. They then presented participants with a promotion- or prevention-focused appeal. They found that across both cultural samples, appeals consistent with participants' chronic self-construal were more persuasive when participants were committed to the brand, whereas appeals consistent with the primed self-construal were more effective under low brand-commitment.

Taken together, these results seem to suggest that when people are not motivated to process information, their judgments reflect their more accessible view of the self, whether it is their chronic self-construal that is culturally encouraged (Briley & Aaker, 2006) or a self-construal that has temporarily been made salient (Agrawal & Maheswaran, 2005). However, when they are motivated to process information, a chronically inaccessible self-construal that has been primed seems to have

no influence on judgment. People's judgment reflects the influence of their chronically accessible self-construal even when their chronically inaccessible self-construal is made salient. That is, people who are motivated to process information seem to fall back on their chronically accessible self-construal as the standard of judgment when they experience some sort of conflict—they are more persuaded by messages that are consistent with their chronic self-construal when they are primed with a self-schema that is inconsistent with their chronic self-construal. A better understanding of the interaction between involvement and people's chronic and primed self-construals awaits future research.

AFFECTIVE RESPONDING

As White (1994, p. 228) eloquently expressed, "emotions are a moral rhetoric that implicates both descriptions of the world and recommendations for acting upon it." According to Markus and Kitayama (1991, 1994), emotional events predominantly characterize the qualities of the types of relationships between a person and his or her social world. Given that people with different schematic conceptions of the self uphold different values and relate differently to their social environment, we would expect individuals with an independent self-construal to desire, experience, interpret, and express emotions in a manner that is different from those with an interdependent self-construal.

More specifically, members of individualist cultures who are more likely to have a promotion orientation should experience more intense promotion-focused cheerfulness/dejection emotions, and members of collectivist cultures who are more likely to have a prevention orientation should experience more intense prevention-focused relaxation/agitation emotions (Higgins, 1997). Indeed, in a study where participants were asked to imagine a scenario in which they had won or lost an important tennis event, American participants expressed more promotion-focused cheerfulness emotions (happy, cheerful, honored, proud) than prevention-focused relaxation emotions (relaxed, peaceful, calm, comfortable), but did not differ in their experience of the promotion-focused dejection emotions (disappointed, shameful, guilty) and prevention-focused agitation emotions (worried, uptight, tense, nervous, fearful). In contrast, Chinese participants expressed more negative agitation emotions than dejection emotions, but did not differ in their experience of cheerfulness and relaxation emotions (Lee et al., 2000, Study 5).

Further, people's ideal affective states across cultures (i.e., affective states that people value and would ideally like to experience) seem to reflect the difference in regulatory orientations of the two self-construals. For example, Tsai, Knutson, and Fung (2006) find that European Americans indicated that they would ideally like to feel elated, enthusiastic, and excited (i.e., positive, promotion-focused emotions); whereas Chinese in Hong Kong indicated that they would ideally like to feel calm, relaxed, and serene (i.e., positive, prevention-focused emotions). Americans have also been reported to prefer feeling more joy than Japanese (Izard, 1971), and more enthusiasm than Chinese (Sommers, 1984).

That different construals of the self are likely to imply different constructions of emotions consistent with their view of the self is also reflected in how people describe their emotions. In particular, Semin and his colleagues (Semin, Görtz, Nandram, & Semin-Goossens, 2002) find that transitive verbs that denote interpersonal relationships (e.g., to respect, to envy, to love) are more often used to describe emotional events in collectivist cultures where thoughts, feelings, and actions in conformity and harmony with in-group members are valued and where group goals prevail over individual goals. In contrast, nouns (e.g., happiness, love) and adjectives (e.g., happy, sad) are more often used to describe similar emotional events in individualist cultures where individual preferences and goals frequently prevail over group goals. As discussed in more detail later, these results are also consistent with the notion that a promotion orientation is associated with abstract, high-level construals (Förster & Higgins, 2005), hence the reliance on more abstract language such as adjectives (Semin et al. 2005), whereas a prevention orientation is associated with concrete, low-

level construals (Förster & Higgins, 2005), hence the preference for more concrete language such as action verbs (Semin et al., 2005).

ATTITUDE TOWARD RISK

Empirical findings that members of collectivist cultures are more risk averse than members of individualist cultures in their goal pursuit strategies would be consistent with the notion that a prevention orientation is about vigilance and not making mistakes, whereas a promotion orientation is about eagerness and not missing opportunities (Crowe & Higgins, 1997). Indeed, Hamilton and Biehal (2005) primed their participants with either an independent or interdependent self-construal and found that those primed with an independent self-construal were more likely to pick mutual funds that are more risky (i.e., the more volatile investments that have higher risks but also offer higher payoffs) than those primed with an interdependent self-construal; further, this difference was mediated by their regulatory goals, in that risky preferences were encouraged by promotion goals that were more salient among the independents but discouraged by prevention goals that were more salient among the interdependents. They also found that interdependent participants' preference for the more conservative options was moderated by their desire to not deviate from the status quo. That is, when interdependent-primed participants were told that they had previously chosen the more risky mutual funds, they were more likely to stay with these investments—another demonstration of risk-averse behavior. In contrast, the preference of the independent participants was not affected by status quo information.

Briley and Wyer (2002) also found that those primed with an interdependent versus independent self-construal* were more likely to choose the compromise alternative (i.e., an option with moderate values on two different attributes) of a camera, a stereo set, and a computer over the extreme options (i.e., options with a high value on one attribute and a low value on a second attribute). And when presented with the task of picking two pieces of candy, interdependent-primed participants were more likely to pick two different candies than two pieces of the same candy. To the extent that choosing the compromise alternative or picking one of each candy reduces the risk of social embarrassment and post-choice regrets, these results provide further support that those with a dominant interdependent self-construal are more risk averse.

We note that contradictory results have also been documented in that those with an accessible interdependent self-construal were observed to be *less* risk-averse than those with an accessible independent self-construal. In particular, Hsee and Weber (1999) presented Chinese and Americans with options in three decision domains—financial (to invest money in a savings account or in stocks), academic (to write a term paper on a conservative topic so that the grade would be predictable, or to write the paper on a provocative topic so the grade could vary), and medical (to take a pain reliever with a moderate but sure effectiveness or one with a high variance of effectiveness). They found that while Chinese were more risk-averse in the academic and medical domains relative to their American counterparts, they were more risk-seeking than Americans in the financial domain. In a different series of studies, Mandel (2003) also reported that participants primed with an interdependent (versus independent) self-construal were more likely to choose the safe (versus risky) option when making a decision about which shirt to wear to a family gathering, or when playing truth or dare. However, these same participants were more likely to choose the risky option when making financial decisions regarding a lottery ticket or a parking ticket.

* Briley and Wyer (2002) primed independent versus interdependent self-construal by telling participants that they would be working individually or as a group (exp. 1–3) or by presenting participants (Chinese and American) with culturally inconsistent versus consistent icons (exp. 4–6). Their results showed that American cultural icons primed an interdependent self-construal among the American participants but an independent self-construal among the Chinese participants. These findings are particularly interesting because they highlight the fact that American cultural icons do not always prime individualism; they may prime a group identity, which in turn makes salient an interdependent self-construal among Americans.

Thus, it seems that an interdependent self-construal is in general more risk-averse than an independent self-construal, and their corresponding regulatory orientation seems to be accountable for this difference (Hamilton & Biehal, 2005). However, an interdependent self-construal may be *less* risk-averse than an independent self-construal when financial decisions are involved. To account for these findings in the financial domain, Weber and Hsee (1998, 2000) propose that members of collectivist cultures can afford to take greater financial risks because their interdependent network serves as a cushion that protects them from financial downfall; that is, they have a larger support system than members of individualist cultures. Because members of collectivist cultures have this cushion, the options are perceived to be less risky. And the larger their social network, the bigger the cushion, and the less risky the options. Hence, they are more likely to choose the riskier options than those from individualist cultures. In support of this “cushion hypothesis,” Mandel (2003) found that the size of participants’ social network mediated the difference between independent and interdependent participants’ risk preferences.

In another study, Weber and Hsee (1998) asked American, German, Polish, and Chinese participants to evaluate the riskiness of a set of financial investment options and their willingness to pay for these options. They found that their Chinese participants gave the lowest riskiness ratings and paid the highest prices for the options, and the opposite was true for Americans. Once risk perception was accounted for, the cross-cultural difference in risk aversion disappeared. This suggests that it is not the case that interdependents are less risk averse than independents—they simply perceive the same investment options as less risky (because they have a larger cushion) and hence would be more willing to invest in them.

LANGUAGE AND PERCEPTION

A review of the literature also shows a convergence between the individualist and collectivist cultures and the distinct characteristics of a promotion versus prevention system in terms of perception and language use.

More specifically, recent research shows that people’s cultural background (Maass, Karasawa, Politi, & Suga, 2006; Semin et al., 2002) has a similar effect on their language use as their regulatory orientation (Semin et al. 2005). In particular, Semin et al. (2002) provide evidence that members from an individualist culture (Dutch) tend to use more abstract language such as adjectives, whereas members from a collectivist culture (Hindustani Surinamese) tend to use more concrete language such as action verbs when describing events. In a different study, Maass et al. (2006) show that members of an individualist culture (Italians) rely more on adjectives in a person description task, whereas members of a collectivist culture (Japanese) use more action verbs. To the extent that members of individualist cultures are likely to be promotion-oriented and members of collectivist cultures are likely to be prevention-oriented, these data are consistent with the findings that strategic approaches associated with a promotion orientation lead to more abstract language use, whereas strategic approaches associated with a prevention orientation lead to more concrete language use (Semin et al., 2005). For example, Semin et al. (2005) show that participants who were asked to write about promotion strategies (e.g., how to be a good friend in a close relationship) used more abstract language in their description than those asked to write about prevention strategies (e.g., how to not be a poor friend in a close relationship; Semin et al., 2005).

More recent research on the influence of language on cognition further establishes the relationship between regulatory orientation, cultural differences and perceptual processes. In a series of studies, Stapel and Semin (2007) find that participants’ basic perceptual processes were systematically influenced by abstract versus concrete language, in that those primed with abstract linguistic categories (e.g., adjectives) had a global perceptual focus, whereas those primed with concrete categories (e.g., action verbs) had a local perceptual focus. To illustrate, participants in one experiment were told they would be seeing a film “about the personality of chess pieces” (an abstract language prime) or a film “about the behaviors of chess pieces” (a concrete language prime), and their task

was to describe the film. Then participants were presented with a target object that was either a square or a triangle (global form) made up of smaller squares or triangles (specific form) and were asked to indicate whether the target object was more similar to a group of objects that matched its global shape or a group of objects that matched its local, specific shape. Participants who had been primed with the abstract language were more likely to match the object based on its global form, whereas those who had been primed with the concrete language were more likely to match the object based on its local form.

In a second experiment, participants were first given a sentence scrambling task that involved either adjectives (e.g., aggressive, friendly, humble) or action verbs (e.g., punch, help, swim). Participants who had been primed with adjectives (i.e., the abstract language prime) were more inclusive in a subsequent categorization task (which is indicative of more global, abstract processing) than those who had been primed with action verbs (i.e., the concrete language prime; for a more thorough discussion of these relationships, see the chapter by Semin in this volume).

This research reveals how the cognitive activation of different meta-semantic linguistic categories can influence people's perception of objects in a systematic manner and has important implications for cross-cultural research. In particular, these findings suggest that those with a promotion orientation (such as members of an individualist culture) who tend to use more abstract language are more likely to engage in global processing, whereas those with a prevention orientation (such as members of a collectivist culture) who tend to use more concrete language are more likely to engage in local processing. Indeed, Förster and Higgins (2005; exp. 1) show that promotion strength is positively correlated with speed of global processing and negatively correlated with speed of local processing, as measured by the Navon (1977) task. Moreover, they report that the reverse is true for prevention strength. Thus, the findings reported by Stapel and Semin (2007) provide the bridge between the linguistic signatures of promotion and prevention orientations (Semin et al., 2005) and their associated processing differences (Förster & Higgins, 2005).

Taken together, these studies suggest that cultures that are more likely to use concrete language (e.g., Maass et al., 2006) are also more likely to attend to contextual (local) features of a stimulus relative to cultures that use more abstract language (Stapel & Semin, 2007). Indeed, Kitayama, Duffy, Kawamura and Larsen (2003) report that Japanese participants were better than their American counterparts at a line drawing task that requires paying attention to more concrete, contextualized information, whereas American participants were better at a line drawing task that requires paying attention to more abstract, decontextualized information (see also, Stapel & Semin, 2007; exp. 3).

The convergent nature of the evidence across different studies using divergent paradigms suggests that the relationship between culture, regulatory orientation, and people's preferential use of linguistic forms and perceptual foci is a robust one. However, cross-cultural differences that appear to contradict predictions based on the convergences noted have also been reported. These contradictions emerge in the context of temporal perspectives that are associated with the individualist and collectivist cultures. We highlight these discrepancies in the next section and offer some potential explanations to resolve these apparent inconsistencies.

THE TEMPORAL PARADOX

Pennington and Roese (2003) have shown that a promotion orientation is associated with a distant temporal perspective, whereas a prevention orientation is associated with a proximal temporal perspective. Consistent with these results, Förster and Higgins (2005) find that a promotion orientation facilitates global processing, whereas a prevention orientation enhances local processing. Drawing from construal level theory (Trope & Liberman, 2003), to the extent that independents are promotion-oriented and interdependents are prevention-oriented (Lee et al., 2000), one would expect independents (who are likely to be promotion-oriented and use abstract language) to have a distant temporal perspective and interdependents (who are likely to be prevention-oriented and use concrete language) to have a proximal temporal perspective.

However, a distant temporal perspective for independents and a proximal temporal perspective for interdependents seem to contradict the more widely accepted belief that members of collectivist cultures adopt a longer-term perspective than their individualist counterparts. In fact, Hofstede has added long-term orientation as a fifth dimension on which individualist and collectivist cultures differ (Hofstede, 1980; Hofstede & Bond, 1988). More specifically, Eastern cultures that are more collectivistic are more likely than Western cultures to prescribe to the values of long-term commitments, which support the work ethic that long-term rewards are expected as a result of today's hard work. In support of this view, Maddux and Yuki (2006) demonstrate that members of a collectivist culture are more likely to think that an event has more distal consequences than are members of an individualist culture. For example, their Japanese participants were more likely to hold the CEO of a company who fired his employees responsible for the increase in crime rate in the area two years later relative to their American participants.

How can this paradox be resolved?

As an exploratory first step to resolve these apparent contradictions, it may be important to distinguish between two types of temporal perspective: (1) the temporal *construal* of an event (i.e., when an event is construed to take place in the future; Trope & Liberman, 2003), and (2) the temporal *consequences* of an event (i.e., for how long will the rewards be enjoyed and the consequences be felt; Hofstede, 1980). Our view is that interdependents' temporal perspective—whether distal or proximal—depends on what their focus is. Their temporal perspective is likely to be distal if they are focusing on temporal consequences, but proximal if they are focusing on event construal.

More specifically, distinct self-construals with their corresponding regulatory goals should be the basis of different temporal construals of events across members from different cultures such that those with a dominant independent self-construal are more likely to construe events at a more distant future than those with a dominant interdependent self-construal (Pennington & Reese, 2003). For the independents, their regulatory goal that emphasizes growth and achievement takes time to attain; hence, they are more likely to adopt a distant temporal construal. Their sensitivity to positive information also focuses their attention to the distant future (Eyal, Liberman, Trope, & Walther, 2004). In contrast, for the interdependents, their regulatory orientation that emphasizes safety and security necessitates their keeping a close watch on their immediate surrounding environment; their inclination to be vigilant often prompts them to start planning and taking action sooner (Freitas, Liberman, Salovey, & Higgins, 2002); hence, they are more likely to adopt a proximal temporal construal. Their sensitivity to negative information also focuses their attention to the near future (Eyal et al., 2004). However, perceptions of the time at which an event occurs should be distinguished from the temporal duration of its consequences (i.e., the ripple effect; Maddux & Yuki, 2006). The propensity to recognize the interrelationships between people, objects, and situations should prompt individuals with a dominant interdependent self-construal to perceive events to have far-reaching consequences. In contrast, the perception of people, objects, and situations as discrete rather than intertwined should prompt individuals with an accessible independent self-construal to think that the consequences of events are relatively short-lived. Consistent with these conjectures, Lee and Lee (2005) observe that members of a collectivist culture (Koreans) are more likely to construe a future event to be temporally more proximal than are members of an individualist culture (Americans). However, when asked how long they anticipated the consequences would be felt ("how long do you anticipate the enthusiasm of the community to last?"), although interdependents construed the event to be taking place in the near future, they thought that the consequences of the event would last longer. In contrast, although independents construed the same event to be taking place in the distant future, they felt that the event was temporally less consequential.

Thus, in one sense, the inclination of independents to abstract events from the here and now and process them globally is what prompts them to detach themselves from the details of an event. When an event's detail is obliterated, it becomes timeless and is situated further into the future. From a different perspective, the construal of the very same event by interdependents remains faithful to the situated detail and retains the concrete complexity of the event holistically. This then

becomes a temporally persistent, consequential representation that has a longer temporal horizon during which details of the event continue to reverberate.

Closely related to the temporal paradox are the inconsistent findings on the global versus local processing of information. Construal level theory (Trope & Liberman, 2003) posits that people construe distant future events more abstractly and near future events more concretely. Thus, independents, who are more likely to adopt a distant temporal construal, should process information at a more abstract, global level; whereas interdependents, who are more likely to adopt a near temporal construal, should process information at a more concrete, local level. However, while interdependents have been observed to use more concrete language than independents (e.g., Maass et al., 2006), they have also been reported to be faster at processing global features than independents (Kühnen & Oyserman, 2002)—results that seem inconsistent with findings that concrete linguistic categories prime local versus global processing (Stapel & Semin, 2007).

Our view is that the desire of interdependents to achieve and maintain relationship harmony within the group necessitates their minding the group as a whole (hence, more abstract, holistic processing at the global level) by paying attention to the details and the immediate environment (hence, more concrete, contextual processing at the local level). Indeed, although interdependent-primed participants in Kühnen and Oyserman's (2002) study were faster than the independent-primed participants in identifying global features, they were able to identify local features with the same expediency as they could identify global features. Thus, one may argue that interdependents, while tending to local, contextual information, do not lose sight of the bigger picture.

CONCLUSIONS

In this chapter, we review the literature to highlight the differences between a collectivist and individualist culture through the lens of two fundamental motivational systems that are associated with the two cultures: whereas members of a collectivist culture are more likely to be guided by a prevention regulatory orientation, those of an individualist culture are more likely to be guided by a promotion regulatory orientation. We discuss cultural differences in terms of the values, attitude toward risk, affective responding, language use, perceptual processing, and temporal perspective that can be accounted for by the distinct regulatory orientations associated with the two cultures.

We also raise the issue about some apparent inconsistencies related to temporal perspectives based on cultural tendency (i.e., collectivist cultures are more long-term oriented, whereas individualist cultures are more short-term oriented; Hofstede & Bond, 1988) versus regulatory orientation (i.e., a prevention orientation is associated with a near future perspective, and a promotion orientation is associated with a distant future perspective; Pennington & Roese, 2003). And we propose how the inconsistency may be resolved. For those with an interdependent self-construal, their tending to local, contextual information is the means to achieve their higher goal of preserving global harmony; and their paying attention to the immediate environment and near future is the means to ensure long-term prosperity. In this light, whether interdependents process globally or locally or they have a distant or near future perspective relative to independents should depend on the extent to which the relationship matters. The important difference to note is that those with an independent self-construal celebrate individual success more than group achievements, and those with an interdependent self-construal value group achievements more than individual success. The way they process information and construe events reflects how they view themselves and the world around them and is consistent with the values and goals they uphold.

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REFERENCES

- Aaker, J. L., & Lee, A. Y. (2001). "I" seek pleasures and "we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28, 33–49.
- Agrawal, N., & Maheswaran, D. (2005). The effects of self-construal and commitment on persuasion. *Journal of Consumer Research*, 31, 841–849.
- Brendl, C. M., & Higgins, E. T. (1996). Principles of judging valence: What makes events positive or negative. *Advances in Experimental Social Psychology*, 28, 95–160.
- Brewer, M. B., & Gardner, W. (1996). Who is this "we"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71(1), 83–93.
- Briley, D. A., & Aaker, J. L. (2006). When does culture matter? Effects of personal knowledge on the correction of culture-based judgments. *Journal of Marketing Research*, 43(3), 395–408.
- Briley, D. A., & Wyer, R. S., Jr. (2002). The effect of group membership salience on the avoidance of negative outcomes: Implications for social and consumer decisions. *Journal of Consumer Research*, 29(3), 400–415.
- Chen, H., Ng, S., & Rao, A. R. (2005). Cultural differences in consumer impatience. *Journal of Marketing Research*, 42(3), 291–301.
- Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior & Human Decision Processes*, 69 (February), 117–132.
- Eyal, T., Liberman, N., Trope, Y., & Walther, E. (2004). The pros and cons of temporally near and distant action. *Journal of Personality and Social Psychology*, 86(6), 781–795.
- Förster, J., & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological Science*, 16, 631–636.
- Förster, J., Higgins, E. T., & Bianco, A. T. (2003). Speed/accuracy decisions in task performance: Built-in trade-off or separate strategic concerns? *Organizational Behavior and Human Decision Processes*, 90(1), 148–164.
- Freitas, A. L., Liberman, N., Salovey, P., & Higgins, E. T. (2002). When to begin? Regulatory focus and initiating goal pursuit. *Personality and Social Psychology Bulletin*, 28, 121–130.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). "I" value freedom, but "we" value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321–326.
- Hamilton, R. W., & Biehal, G. J. (2005). Achieving your goals or protecting their future? The effects of self-view on goals and choices. *Journal of Consumer Research*, 32(2), 277–283.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280–1300.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Hofstede, G., & Bond, M. H. (1988). The Confucius connection: From cultural roots to economic growth. *Organizational Dynamics*, 16, 4–18.
- Hong, Y.-y., Ip, G., Chiu, C.-y., Morris, M. W., & Menon, T. (2001). Cultural identity and dynamic construction of the self: Collective duties and individual rights in Chinese and American cultures. *Social Cognition*, 19(3), 251–268.
- Hsee, C. K., & Weber, E. U. (1999). Cross-national differences in risk preference and lay predictions. *Journal of Behavioral Decision Making*, 12(2), 165–179.
- Izard, C. E. (1971). *The face of emotion*. New York: Meredith Corporation.
- Kitayama, S., Duffy, S., Kawamura, T., & Larsen, J. T. (2003). Perceiving an object and its context in different cultures. *Psychological Science*, 14(3) 201–207.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.
- Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78(6), 1122–1134.
- Lee, S., & Lee, A. Y. (2005). The far and near of self views: Self-construal and temporal perspective. Working paper, Northwestern University.
- Liberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology*, 77, 1135–1145.
- Maass, A., Karasawa, M., Politi, F., & Suga, S. (2006). Do verbs and adjectives play different roles in different cultures? A cross-linguistic analysis of person representation. *Journal of Personality and Social Psychology*, 90, 734–750.
- Maddux, W. M., & Yuki, M. (2006). The "ripple effect": Cultural differences in perceptions of the consequences of events. *Personality and Social Psychology Bulletin*, 32, 669–683.

- Mandel, N. (2003). Shifting selves and decision making: The effects of self-construal priming on consumer risk-taking. *Journal of Consumer Research*, 30(1), 30–40.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Markus, H. R., & Kitayama, S. (1994). The social construction of self and emotion: Implications for social behavior. In S. Kitayama & H. Markus (Eds.), *Culture and emotion: Empirical studies of mutual influence* (pp. 89–130). Washington, DC: American Psychological Association.
- Navon, D. (1977). Forest before trees: The precedence of global features in visual perception. *Cognitive Psychology*, 9, 353–383.
- Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think: Effects of priming individualism and collectivism. *Psychological Bulletin*, 134, 311–342.
- Pennington, G. L., & Roese, N. J. (2003). Regulatory focus and temporal distance. *Journal of Experimental Social Psychology*, 39, 563–576.
- Roese, N. J., Hur, T., & Pennington, G. (1999). Counterfactual thinking and regulatory focus: Implications for action versus inaction and sufficiency versus necessity. *Journal of Personality and Social Psychology*, 77, 1109–1120.
- Semin, G. R., Görts, C., Nandram, S., & Semin-Goossens, A. (2002). Cultural perspectives on the linguistic representation of emotion and emotion events. *Cognition and Emotion*, 16, 11–28.
- Semin, G. R., Higgins, E. T., Gil de Montes, L., Estourget, Y., & Valencia, J. (2005). Linguistic signatures of regulatory focus: How abstraction fits promotion more than prevention. *Journal of Personality and Social Psychology*, 89, 36–45.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580–591.
- Sommers, S. (1984). Adults evaluating their emotions: A cross-cultural perspective. In C. Z. Malatesta & C. E. Izard (Eds.), *Emotion in adult development* (pp. 319–338). Beverly Hills, CA: Sage.
- Stapel, D., & Semin, G. R. (2007). The magic spell of language: Linguistic categories and their perceptual consequences. *Journal of Personality and Social Psychology*, 93, 23–33.
- Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90, 288–307.
- Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology*, 60, 649–655.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110, 403–421.
- Wang, J., & Lee, A. Y. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research*, 43, 28–38.
- Weber, E. U., & Hsee, C. K. (1998). Cross-cultural differences in risk perception, but cross-cultural similarities in attitudes towards perceived risk. *Management Science*, 44(9), 1205–1217.
- Weber, E. U., & Hsee, C. K. (2000). Culture and individual judgment and decision making. *Applied Psychology: An International Review*, 49(1), 32–61.
- White, G. M. (1994). Affecting culture: Emotion and morality in everyday life. In S. Kitayama & H. Markus (Eds.), *Culture and emotion: Empirical studies of mutual influence* (pp. 219–239). Washington, DC: American Psychological Association.

18 Looking Forward, Looking Back

Cultural Differences and Similarities in Time Orientation

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time /tīm/ – n. the indefinite continued progress of existence, events, etc., in past, present and future regarded as a whole.

— Oxford Dictionary

Time is an important physical dimension. Along with concepts like space, time is an essential building block of all other quantities from physics (e.g., velocity, force, energy). Society has developed complex, broadly shared systems for measuring the passing of time (millenia, hours, microseconds) and for identifying specific points in time (Tuesday, 1200 SC, 16:30 GMT). We track the passing of time at an accuracy level of about 30 billionths of a second per year, with one second defined as exactly 9,192,631,770 oscillations of the cesium atom's resonant frequency ("The Atomic Age of Time Standards," 2007). This preoccupation with time is not a new phenomenon. Calendars can be traced as far back as 20,000 years ago, when Ice Age hunters in Europe gouged holes in sticks and bones to track moon phases. And early clocks were probably first crafted 5000 to 6000 years ago by civilizations in the Middle East and North Africa (US National Institute of Standards and Technology, 2007).

Why this obsession with observing, measuring, and tracking time? Time offers an important basis for helping us to understand our shared and individual experiences in the world. Rather than being strictly an artifact of physics, time forms an essential frame for organizing and interpreting life's events. The central role of time in shaping our thoughts, lives, and very existence has been put forth by great thinkers from both philosophy and psychology, including Immanuel Kant (1781/1965), William James (1890/1950), and Martin Heidegger (1927). Thus, rather than existing independent of the person, in a social vacuum, time has an important psychological role (Block, 1990).

The present chapter explores the interplay of time and mind from a cultural perspective, investigating how people focus their attention when they must interpret and negotiate situations and events they encounter. In particular, I try to understand whether East Asians and North Americans differ on these occasions with respect to their temporal focus. Research has established that people often display biases in their temporal focus (e.g., Zimbardo & Boyd, 1999), and that these biases are predictive of unhealthy emotions (Zimbardo & Boyd, 1999), risky choices (Boyd & Zimbardo, 2005; Keough, Zimbardo & Boyd, 1999; Zimbardo, Keough, & Boyd, 1997), and, ultimately, overall well-being (Bonewell & Zimbardo, 2004). Given the importance of temporal processes to key

psychological functions, and the possibility of both commonalities and differences across cultures, this research domain deserves attention.

In the first section below, I introduce the time orientation concept. Second, some findings are discussed that show cultural differences in people's mental models for understanding how event chains unfold. Topics examined include people's retrospective and prospective causal inferences and their expectations of change in the future. These findings could indicate that culture influences concreteness and salience of representations of events experienced in the past or anticipated in the future. Some implications of this idea are then explored. In the third section, I look at the extent to which individuals focus on past, present, and future time zones when making a common, everyday decision—an impulse purchase of an ice-cream cone. And in the fourth section, people's tendencies to assert control over time are explored using some data showing endorsements of time-related proverbs. Conclusions are presented in the final section.

TIME ORIENTATION

For we convinced physicists, the distinction between past, present, and future is only an illusion, however persistent.

— Albert Einstein (Greene, 2004)

Despite the physical reality that time is a continuous variable, people's subjective experiences of time suggest a compartmentalized structure. This structure offers three possibilities regarding the timing of events that affect us. Events might have already happened (past), they might be currently unfolding (present), or they might have yet to occur (future). These three temporal frames, which encompass all human experience, emerge from cognitive processes that distinguish any one frame from the others (Bonwell & Zimbardo, 2004). Thus, these frames are psychological concepts that we construct to organize the array of events that we encounter in daily life. They provide cognitive categories with which knowledge structures can be tagged. Consequently, they become relevant for memory processes (encoding, storage, and retrieval), and for developing inferences, goals, and expectations (Zimbardo & Boyd, 1999). By partitioning the continual flow of experiences into these frames, the mind provides order, coherence, and meaning to these events.

Time orientation has been defined as “the relative dominance of past, present or future in a person's thoughts” (Hornik & Zakay, 1996, p. 385) and involves “a preference for locating action in some temporal zone” (Lennings, 1996, p. 72). Building on these ideas, time orientation is conceived in the present chapter as the relative salience and application, at a given point in time, of knowledge representations (e.g., memories, motives, goals, affect) that are associated with either the past, present, or future. Some additional thoughts regarding this conceptualization are worth noting. First, my view allows time orientation to be situation-specific. The present chapter is interested in addressing contexts in which people attempt to comprehend incoming information so that they can formulate appropriate responses. My conceptualization of time orientation does not insist that a particular orientation bias applies equally to all situations. Even though a person might tend to draw on knowledge associated with a particular time zone under certain circumstances, he or she might not under others. For example, someone who often relies on knowledge related to the past when interpreting new situations might not dwell on the past chronically. This person's attention to past events could be prompted by the situation at hand.

Second, the distinction between past, present, and future knowledge is determined subjectively, based on people's own “labeling” of constructs on which they draw. Consider the situation in which someone was told yesterday about a task that they will need to complete tomorrow. This knowledge could plausibly be categorized in any of the three time zones, and the ultimate categorization could depend on a number of factors (e.g., the person's interpretation of and beliefs about the target event, the context in which this knowledge is retrieved, and the situation in which it is to be applied).

And finally, my view of time orientation hinges on the salience in the mind of relevant knowledge that is associated with past, present, or future. This approach might allow some insights regarding the cognitive underpinnings of temporal focus biases. Rather than focusing only on the extent to which people gravitate toward particular time frames to interpret and act, my conceptualization encompasses the level of concreteness and detail of the knowledge that is brought to bear in these situations. Implicit to this view is the idea that biases in a person's temporal focus arise because constructs in the mind that are associated with a particular time frame (e.g., future) are particularly concrete and salient, and therefore are more likely to be applied.

LOOKING FORWARD, LOOKING BACK

CONNECTING EVENTS ACROSS TIME FRAMES

When an event or situation occurs in people's lives, they use various inferential processes to interpret it, and these processes often involve either a retrospective or prospective outlook.

Retrospective inferences. Quite a bit of research has examined the types of causal relationships that people from East Asian and North American backgrounds infer for events they observe, and much of this research has a retrospective view. These studies present an outcome event, then seek an understanding of people's inferences regarding the stimulus, condition, or agent that caused this outcome. A consistent finding from this research stream is that East Asians, compared to Westerners, make broader, more complex causal attributions (e.g., Menon, Morris, Chiu, & Hong, 1999; Morris, Menon, & Ames, 2001; Morris & Peng, 1994; for a review, see Chiu & Hong, 2007).

Consider the case where a person has displayed unusual behavior for ambiguous reasons. Westerners tend to attribute cause to the individual, often explaining the behavior in terms of an actor's personal characteristics (fundamental attribution error; see Ross, 1977); though East Asians are more inclined to take into account events that have befallen the actor (Lee, Hallahan, & Herzog, 1996; Morris & Peng, 1994; Miller, 1984). Morris and Peng (1994) illustrate this point with an analysis of news reports of mass murders, comparing stories that appeared in newspapers targeted at either American or Chinese communities. They examined articles about two assailants—Gang Lu, a Chinese physics student, and Thomas McIlvane, an American postal worker. These articles appeared in the leading English language (*The New York Times*) and Chinese language (*World Journal*) newspapers in the United States. In stories about both tragedies, American reporters most often attributed the events to the disposition of the assailant (e.g., bad temper, mentally unstable), though Chinese reporters most often suggested that some event from the assailant's history was responsible (e.g., recently fired, isolation from loved ones).

Note that the causal reasoning processes of Chinese include an examination of past events and situations that might contribute to the event at hand. The causal model of Americans requires a past-oriented purview to a lesser extent because actors' characteristics and attributes, which Americans consider to be stable over time (Markus & Kitayama, 1991; Noranzayan, Choi & Nisbett, 2002), are perceived to be the primary agent of cause.

Prospective inferences. Recent research by Maddux, Yuki, and their colleagues (Maddux & Yuki, 2006; Maddux, Lau, Chiu, Hong, & Yuki, 2007) examines causal reasoning from a prospective view: people are asked to ascertain which future outcomes a particular focal event might precipitate. Springboarding from the idea that East Asians display more complex (retrospective) causal attributions than North Americans do, they predicted that East Asians would be more sensitive to (prospective) consequences of an event. This prediction was correct.

In one study (Maddux & Yuki, 2006, study 1), Asian Americans and Anglo Americans saw a picture of a person making a shot in a game of pool and were asked to answer questions about the downstream effects of this shot. They indicated how much this shot would affect (a) the person who took the next shot and (b) the person who took the sixth shot after the focal shot. Anglo Americans, as compared to Asian Americans, thought the focal shot would have greater impact on the person

taking the next shot. But, the pattern reversed when the temporal distance between the two events was large. When considering the effect of the initial shot on the person taking the sixth shot, Asian Americans thought the focal shot would have greater impact than Anglo Americans did. In sum, participants' cultural backgrounds affected the extent to which they connected events occurring in the near term versus those occurring in the future. Maddux et al. (2007) extends this work, finding further confirmation of this pattern of cultural differences.

Research examining both prospective and retrospective causal reasoning reveals an interesting pattern. As compared to North Americans, East Asians are more in touch with the past, showing a sensitivity to events and forces that might have led to the focal event. East Asians are also more sensitive to the future, displaying a ready ability to see the distal consequences of an event. Importantly, at the core of these cultural differences are differences in the complexity of inferences made. North Americans make relatively simple inferences regarding what caused an event and what consequences it will have, whereas East Asians have a more complex, nuanced view of causal relationships.

EXPECTATIONS OF CHANGE OVER TIME

Ji, Nisbett, and Su (2001) suggest that Westerners expect greater stability and less change than East Asians do. These authors lay out a historically based rationale to support this idea. According to their arguments, many early Greek thinkers focused not on the ebb and flow of life's changes as time moves along but instead on the state of things in the present and on which aspects remain unchanged. Parmenides (born ~500 SC), for example, argued that we live in an eternally static reality and developed logical arguments to support his premise that change and transformation are not possible. His work influenced Plato, who was concerned with what is immutable and constant in the world.

Consistent with these ideas, Westerners appear to be more predisposed to "live in the moment" and discount the future, as illustrated by a popular ancient Roman poem which includes a phrase still in use today.

Scale back your long hopes to a short period. Even as we speak, envious time is running away from us.
Seize the day, trusting little in the future.

— Horace, *Odes I*, 23 SC (emphasis added)

But early Chinese thinkers, according to Ji et al. (2001), generally had a more fluid, less constrained view of time and change. The tremendously influential *I Ching*, or *Book of Changes*, explored the topic of transformation and change. It is thought to be the oldest of the classic Chinese texts and is generally considered to describe the philosophy at the core of Chinese cultural beliefs. In contrast to the view of Parmenides, *I Ching* preaches the inevitability of change in life, suggesting that transformation is a constant, recurring process.

This anecdotal evidence appears to suggest that culture might influence people's mental models for predicting what changes the future holds. Ji et al.'s (2001) studies confirm this speculation. Americans, as compared to Chinese, expect less change from an initial state, and more stable patterns of change when events are changing. For example, participants indicated the likelihood that a high school chess champion would lose his next game against his strongest opponent. Americans were more likely than Chinese to believe that the champion would not be beaten (study 1). In another study (study 2), Chinese and Americans were presented with graphs showing trends (e.g., global economic growth rates). The trends presented were of four types: positively accelerated growth, negatively accelerated growth, positively accelerated decay, and negatively accelerated decay. Participants were asked to predict the probability for the trend to go up, to go down, or to stay the same, as compared to the last point on the graph. In keeping with the authors' predictions, Americans were more likely than Chinese to predict that the trend would continue rather than being disrupted.

These data show that when making predictions about the future, Americans apply uncomplicated, straightforward models. Stability is often expected rather than change; and when change is inevitable, it is expected to unfold in an orderly, manageable way. The Chinese view incorporates more complexity, however. Chinese are more likely to see disjointed, nonuniform patterns on the horizon, a view that could reflect greater appreciation that events in life sometimes unfold in ways we don't anticipate.

A POSSIBLE EXPLANATION: MENTAL REPRESENTATIONS OF DISTAL TIMEFRAMES

Taken together, the aforementioned findings suggest that East Asian individuals have rather complex mental models for understanding how event chains unfold over time. When an event is encountered, East Asians as compared to North Americans are more likely to draw connections between the upstream causes and downstream consequences. The future is seen as more unpredictable and changing by East Asians, whose attention is more likely to be directed toward the broader context and toward the interrelationships among events. The underpinnings of these differences could pertain to the types of mental representations that are used to describe and understand temporally distant events. North Americans' representations of past and future events could often involve non-complex schemas, though those of East Asians could be more detailed, incorporating contextual factors.

Put differently, East Asians' representations of these events might often be "low-level construals," and North Americans' representations tend to be "high-level construals" (construal level theory; Liberman & Trope, 1998; Trope & Liberman, 2003). High-level construals are "schematic, decontextualized representations that extract the gist from the available information," and low-level construals tend to be "more concrete and include subordinate, contextual and incidental features of events" (Nussbaum, Trope & Liberman, 2003, page 485). Whereas high-level construals are parsimonious, consisting of general, superordinate, and core features of events, low-level construals are richer, more detailed, and less structured.

According to construal level theory, people use abstract, high-level construals to represent distant future events. And, as events become closer in temporal proximity, more concrete, low-level construals are used.* This pattern arises because people have a relative lack of knowledge about distant versus proximal events (Liberman, Trope, & Stephan, 2007). Patterns of inferences and predictions of North Americans, mentioned above, are generally consistent with the predictions of construal level theory: North Americans use high-level construals for representing future situations. But why would East Asians tend to have more low-level construals of future events? Differences across cultures in agency beliefs might provide an explanation.

Agency and abstraction. People who have a general feeling of control and empowerment are more likely to engage in abstract thinking than those who don't have this feeling (Smith & Trope, 2006). Such feelings predispose people to focus on the "big picture" and higher goals and consequently, to take a psychologically distal perspective on a given situation. Increasing one's psychological distance from an event, in turn, increases a person's tendency to form more abstract representations of it (Trope, Liberman, & Wakslak, 2007). Further, greater feelings of independence accompany feelings of control (Overbeck & Park, 2001), fostering a greater sense of self-distinctiveness and exacerbating felt psychological distance from the people and events of interest (Lee & Tiedens, 2001; Stapel & Koomen, 2001).

People who feel in control of their future can rely on simple, schematic representations to construe anticipated events. In their view, they themselves are the primary actor driving the direction

* Overreliance on oversimplified, schematic models of future behavior, which fail to incorporate contextual factors, has been shown to underlie a number of common prediction errors, including individuals' overconfident predictions of others' behaviors (Dunning, Griffin, Milojkovic, & Ross, 1990; Griffin, Dunning, & Ross, 1990; Vallone, Griffin, Lin, & Ross, 1990) and underestimation of task completion times (Buehler, Griffin, & Ross, 1994; Kahneman & Lovallo, 1991; Kahneman & Tversky, 1979).

and outcomes of events in which they will be involved, and additional detail regarding these events is often superfluous. But, those who don't feel that they control their own futures are more likely to require and attend this additional detail. People who don't have strong feelings of control and power are likely to have greater connections to and dependency on others (Emerson, 1962) and to feel the need to accommodate them (Anderson, Keltner, & John, 2003; Keltner, Gruenfeld, & Anderson, 2003). As a consequence, they are less likely to operate at an abstract level, because they find useful and perhaps essential the additional specificity of more concrete, low-level construals of target events. With the need to "fit in" and to adjust to the various unexpected turns that arise as the future unfolds, high-level construals are typically insufficient.

Studies by Smith and Trope (2006) support this view, showing that people who are primed to feel greater control of their lives become more likely to construe problems in abstract, high-level terms—even when these problems are unrelated to the domain in which control has been primed. In one study (study 1), participants were either primed so that they felt a strong or weak sense of control. Those in the high-control condition were asked to write about a particular time or incident in which they had control over someone else, and those in the low-control condition were asked to write about a particular time or incident in which someone had control over them. Participants then completed a categorization task that showed the extent to which they included atypical exemplars (e.g., purse) as members of a given category (e.g., clothing). As expected, participants in the low-versus high-control priming condition showed more low-level, detailed processing by excluding these atypical items more often.

Adding to this evidence, Liu and Aaker's (2007) findings suggest that people who suffer a family death due to cancer—an event which is likely to remind them that control of life's outcomes is elusive—think about the future in a more concrete, detailed way.

Cultural differences in agency beliefs. According to reviews by Dyal (1984) and Weisz, Rothbaum, and Blackburn (1984), East Asians are less likely than Anglo Americans to believe in their own agency. For example, when indicating how much "control you have over the way life turns out," respondents from East Asian countries (China, South Korea, and Japan) reported less feelings of control than those from North America; and among North American respondents, Asian Americans reported less feelings of control than Anglo Americans (Sastry & Ross, 1998). Because East Asians don't always believe that they can act on their environments to achieve their goals and wishes ("primary control"), they often achieve a sense of control by aligning themselves with existing realities to control the psychological impact of events ("secondary control"; Rothbaum, Weisz, & Snyder, 1982; Weisz et al., 1984; for a review, see Morling & Evered, 2006). Thus, one might expect that the secondary control mode requires a greater sensitivity to anticipated events and situations that the future holds.

Morling and her colleagues confirm the use of primary and secondary control modes in studies of North American and Japanese individuals and, consistent with the proposition raised above, suggest that control mode patterns are tied to individuals' cognitions (Morling, 2000; Morling & Evered, 2006; Morling, Kitayama, & Miyamoto, 2002).

The nature of people's socio cultural environment can shape their cognitive representations in important ways (Boroditsky, 2001; Chiu, Leung, & Kwan, 2007; Wang & Ross, 2007). Along these same lines, the differences between East Asians' and North Americans' views of distal events could be related to the ways in which these events are represented in the mind. Because East Asians generally feel less agency than North Americans, relying on secondary control modes, they should be more likely to represent these events using more low-level construals. East Asians see their own actions as fitting within the broader context of others' actions and unexpected events, and their representations should capture this detail so that they can foresee and navigate this complex landscape. North Americans, on the other hand, believe that their own actions have primary importance in determining outcomes in their lives. Consequently, their representations of distal time frames often should consist largely of noncomplex schemas, which discount the influence of outside forces.

Two implications of the propositions laid out in the present section are examined in the sections to follow. In the next section, I examine whether the time zones that people consider when making decisions differ culturally, and whether the pattern is consistent with expected differences in representations of events in these zones. The subsequent section addresses the influence of agency beliefs on people's conceptions of their relationships with time.

BEHAVIORAL DECISIONS

The particular time period of the events on which a person focuses when making decisions can influence the nature of these decisions and, potentially, the outcomes. For example, suppose a person is deciding whether or not to buy an ice-cream cone on a warm day. Events or experiences that are associated with the past, present, or future time frames could be reviewed to inform the decision. If the decision maker is focused primarily on the future, her assessments will be related to understanding the future implications of the immediate action, eating ice cream. The decision maker is likely to consider experiences or events that she anticipates will or could happen at some point in the future, and how her ice-cream decision will or could impact these experiences. The projected experiences that become salient could pertain to her aspirations, and thus could touch on hopes or fears, or could pertain to events that are associated with either concrete or vague plans.

When the "past" time frame is influential, prior situations that are analogous to the one at hand are recalled. Thus, the decision maker might typically bring to mind some of her previous experiences with ice cream. Memories of these experiences, and the related costs and benefits, might be accurate or distorted. And certain affective states that might attend these recollections—e.g., feelings of nostalgia, delight, or contentment—are likely to be influential as well.

Finally, this person might focus on the "present" category when deciding. According to Zimbardo and Boyd (1999), substantially different cognitive processes come into play in this case than when a person focuses on the past or future. In the latter cases, individuals construct a representation of the past or future using various abstract cognitive vehicles (e.g., memories or future expectancies). In contrast, a focus on the present involves a keen sensitivity to the experience that is in the process of unfolding. The target stimuli at hand are likely to draw primary attention, with sensory, biological, and social elements of the (present) environment weighted heavily. The actions and judgments that ensue can often address the pulls one feels at the moment. One might expect that in situations where one considers an ice-cream cone purchase, which is typically an impulse buy, a present orientation might often be involved.

If the representations of temporally distant events differ culturally, as suggested above, then evidence of this difference might appear in the decision-making domain. East Asians (as compared to North Americans) are expected to have more concrete, detailed representations of events and experiences from time frames that are removed from the present. And because these more concrete events should be more salient than less concrete ones (Baumeister & Vohs, 2003; Fredrick, Loewenstein & O'Donoghue, 2003; Liu & Aaker, 2007), East Asians should be more likely to draw on the past and future to decide on behaviors.

DATA

Briley and Aaker (2007) examined the time frames that people focus on when deciding whether to buy an ice-cream cone. Participants were asked to indicate the extent to which they focus on the past, present, and future when making this decision. The ice-cream purchase scenario offers a reasonable context because it is an everyday situation that most people have considered, regardless of their cultural background. In addition to looking at the ice-cream purchase scenario, these data explored the influence of time orientation on participants' reported happiness.

Participants were presented with several purchase scenarios, among which was the target ice-cream cone task. They were asked to indicate how much they would expect to draw on events,

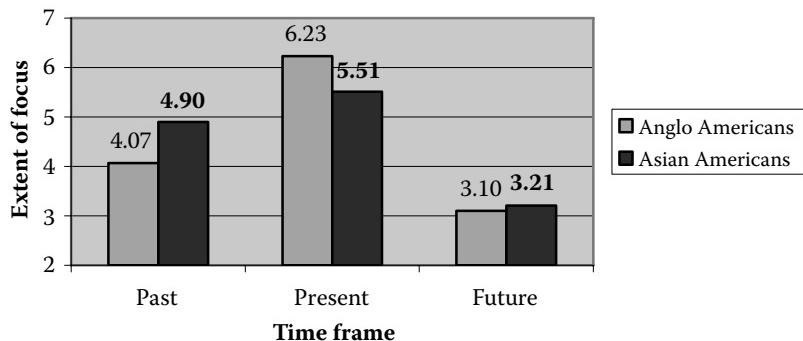


FIGURE 18.1 Reports of the extent to which participants draw on each time zone when making an ice-cream purchase decision.

experiences, and feelings from each time zone (past, present, and future) when making this decision, using a scale from 1 (very little) to 7 (a lot). Also, participants completed a four-item measure of subjective happiness (Lyubomirsky & Lepper, 1999).

Participants' tendencies to focus on the present, past, and future were examined as a function of their ethnic background (Anglo, Asian) using a separate ANOVA for each of the three time frames. These results are summarized in Figure 18.1. Participants focused most on the present ($M = 5.87$), somewhat on the past ($M = 4.47$), and least on the future ($M = 3.16$). However, Anglos reported a significantly stronger focus on the present than did Asians (6.23 versus 5.51, respectively), whereas Asians reported a significantly stronger focus on the past than Anglos (4.90 versus 4.07, respectively). Anglos and Asians drew on the future to a similar extent (3.10 versus 3.21, respectively).

Further analyses were performed to determine whether time orientation leanings contributed to happiness, and whether this contribution depends on one's cultural background. Present-focused individuals reported being happier than those who are not, and this effect was not contingent on participants' cultural background. Similar analyses of the effects of past and future orientation yielded no significant effects at all.

DISCUSSION

Arguments laid out in the previous section suggest that culture can influence the concreteness and, therefore, salience of temporally distant event representations. If this is the case, then culture should influence the time period that people draw upon when making decisions. The results are consistent with this proposition. When deciding whether to buy an ice-cream cone, Anglo Americans indicated that they would draw more on present experiences and feelings than Asian Americans. But, we found the opposite pattern for the contribution of past experiences. Asian Americans were more likely to draw on the past than were Anglo Americans. Note that both Asian Americans and Anglo Americans were more likely to draw on the present than on other time zones, possibly suggesting that both ethnic groups are largely in touch with the present when making this type of everyday decision. But Anglo Americans, unlike Asian Americans, may ground themselves in the present to the exclusion of strong contact with other time zones. We found no evidence of cultural differences in the reliance on expected or anticipated (future) experiences using the ice-cream scenario. However, this could be because anticipations are generally not very relevant for this decision.

It is interesting to note that happiness arises from a strong present orientation, and this was true regardless of culture. Participants' past-orientation and future-orientation scores were not found to influence how happy they are. A focus on the present might be an important stepping stone to well-being.

It should be noted that an ice-cream purchase decision might typically draw less attention and thoughtful processing than other, more important decisions that people make. More serious decision situations are likely to involve more in-depth deliberations and, in some cases, to become emotionally charged. These differences in processing could change the pattern of results observed here.

Cultural differences in people's beliefs about agency might also help to shape their conceptions of a person's relationship with time: Do people actively manage time, defer to its influence, or both?

ACTIVE AND PASSIVE RELATIONSHIPS WITH TIME: INSIGHTS FROM PROVERB ENDORSEMENTS

Proverbs store and transmit accepted wisdom developed over history, offering advice and recommended courses of action. Because proverbs typically address important dilemmas life brings, they often raise topics and themes of considerable interest. Therefore, examining people's reactions to the ideas communicated in proverbs can offer ripe ground for bringing to light differences across socio cultural groups (Briley, Morris, & Simonson, 2000; Briley & Wyer, 2002; Weber, Hsee, & Sokolowska, 1998). To this end, Briley and Aaker (2007) examined the reactions of Asian Americans and Anglo Americans to two time-related proverbs, "Time is money" and "Time heals all wounds." These two proverbs are of interest because they suggest different views of how people and time interact.

The adage "Time is money," coined by Benjamin Franklin (1748/1961) and deemed a "metaphor we live by" (Lakoff & Johnson, 1980), has a natural appeal for many. This is perhaps because time is arguably the most valuable resource we have (Perlow, 1997). Not surprisingly, economists often take this perspective ("Time Is Money, Professor Proves," 2002). But in addition, studies confirm that in everyday situations people often think about their time in terms of its cash value (Evans, Kunda & Barley, 2004; Kavony, 2001; Perlow, 1997), and that those who do so give high priority to work and low priority to leisure activities and helping others (DeVoe and Pfeffer, 2007a, 2007b). Therefore, people who have a "time is money" perspective pursue active management of their time and emphasize material rather than social or other emotion-oriented pursuits.

The proverb "Time heals all wounds" expresses the common belief that as time passes, the impact and damage of problems from the past subside. A bad experience, such as a poor performance on a college exam, is more painful and prominent a week after it happens than a year afterward. The idea that time can heal ills that have befallen us is linked to a broader conviction that the passing of time tends to bring balance and equilibrium. Time, according to this way of thinking, has an important role in determining which experiences we attend, how much they affect us, and, ultimately, how we sometimes feel. This view acknowledges that the individual does not have total and complete control.

Though these two proverbs offer guidance that is not necessarily contradictory, they emphasize different views of how time and the individual interact. People who are guided strongly by the "time is money" ideal are likely to be predisposed to actively embrace action, particularly those who yield measurable material gains. Those who subscribe to "time heals all wounds" recognize that the power of the individual sometimes subordinates to that of time. "Time is money" emphasizes active, hands-on management of one's time, whereas "time heals all wounds" emphasizes a less control-oriented relationship. Given that North Americans tend to believe that they have substantial control over their environments, as discussed above, they might embrace the principles offered by "time is money" more than those of "time heals all wounds," though East Asians may have the opposite pattern.

Relative endorsements of "Time is money" and "Time heals all wounds." Seeking insights regarding beliefs about time, Briley and Aaker (2007) collected data by asking Asian American and Anglo American individuals to indicate the extent to which they endorse the ideas expressed in the proverbs "Time is money" and "Time heals all wounds." Participants read several common idioms, among which were our two targets. Each idiom appeared with a brief explanation. For each of these

expressions, they completed measures of their familiarity with and endorsement of each phrase. To measure their familiarity with the phrases, they were asked how familiar they are with each and how often they had heard it growing up ($\alpha = .68$). As a measure of endorsement of each proverb, participants indicated how much they agree with the idea expressed, rely on this idea for living life and making decisions, and draw on it as a source for giving advice ($\alpha = .83$).

Participants also gave self-reports of their time orientation. They reported the extent to which they would describe themselves as a person who is past-oriented, present-oriented, and future-oriented. They then responded to two items which asked whether they felt that they could be present-oriented and future-oriented at the same time, and whether they felt that they were not able to be both at the same time. These two items were averaged after reverse-scoring the latter item to form a “present and future focus” measure ($\alpha = .83$).

Responses to all items were reported along a scale from 1 (not at all) to 7 (very much). Some of these measures used a single item, which has been shown to predict as well as multiple item measures (Bergkvist & Rossiter, 2007; Rossiter, 2002).

As expected, Asian Americans and Anglo Americans were equally familiar with the target proverbs. And although they did not differ in their endorsements of non-target items, their responses to target items differed significantly.

The relative endorsements of the two target proverbs were examined using a repeated measure MANOVA, with proverb type (active, non-active view) as the within-subject variable and participants’ ethnic backgrounds (Anglo, Asian) as a between-subject predictor. To control for participants’ experience with the proverbs, their reported familiarity with the target proverbs and their age were included as control variables. As expected, a significant interaction of proverb type and participants’ cultural background emerged. Anglo Americans endorsed “Time is money” ($M = 4.52$) significantly more than “Time heals all wounds” ($M = 4.24$), and Asian Americans had the opposite pattern ($M = 4.78$ and $M = 5.30$ for “Time is money” and “Time heals all wounds,” respectively). Cell means are in Figure 18.2.

ADDITIONAL ANALYSES

The counsel offered by “Time heals all wounds” compels one to be forward-looking, extrapolating a current situation to a future period. This advice encourages people to connect the future to the present and to appreciate the inevitability of change. To understand whether certain time orientations help to advance these beliefs and whether cultures differ regarding this influence, it is of interest to look at how endorsements of this proverb correlate with people’s time orientations.

First, participants’ endorsements of this proverb were examined as a function of their beliefs that they are able to focus on both the present and future at once. In an Ordinary Least Squares (OLS)

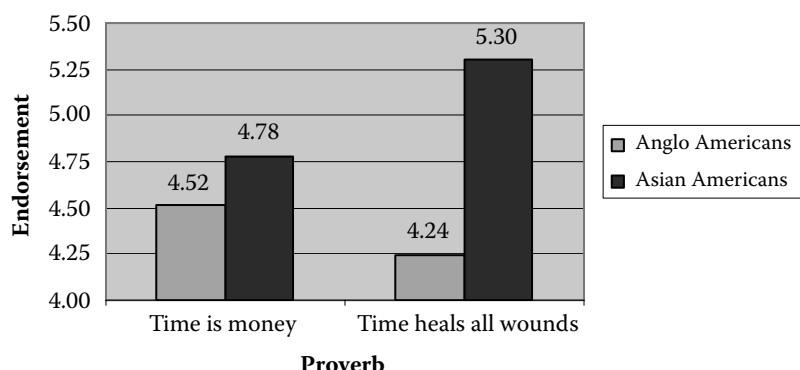


FIGURE 18.2 Endorsement of proverbs by ethnic group.

regression, endorsements of the proverb were predicted using ethnicity (Asian, Anglo), the “present and future focus” variable, and the interaction of these two. Consistent with other findings showing that East Asians are more adept at making connections between present events and other time frames, these data showed that Asian Americans endorsed “Time heals all wounds” more strongly than Anglo Americans. In addition, participants were generally more likely to endorse the proverb if they strongly believed that they could focus on both the present and future at the same time than if they did not.

Second, an analysis examined whether participants’ endorsements of “Time heals all wounds” correlated either positively or negatively with their focus on the present. In an OLS regression, proverb endorsements were predicted with the present orientation variable, participants’ ethnic group (Anglo, Asian), and the interaction of these two variables. Consistent with the previous analysis, Asian Americans were found to give stronger endorsements of the proverb than Anglo Americans. Interestingly, this effect is qualified by participants’ present-orientation levels. For Asian Americans, participant proverb endorsements and focus on the present were nonsignificantly positively correlated. However, a significant negative correlation between these two variables emerged for Anglo Americans.

Similar analyses that examined the effects of participants’ focus on the past and future on their endorsements of “Time heals all wounds” yielded the expected main effect of ethnicity but no interactions.

DISCUSSION

As a preliminary vehicle for uncovering cultural differences and similarities in people’s views of time, Briley and Aaker (2007) examined endorsements of two popular proverbs. Some interesting insights emerged from this analysis. First, the relative endorsements of the idioms for Anglo Americans and Asian Americans were consistent with what might be expected based on cultural beliefs regarding agency and control. Anglo Americans lean toward active, assertive control of time, whereas Asian Americans are more likely to accept that they are not always in control. Interestingly, the two cultural groups reported similar endorsements of “Time is money” ($diff = .26$), though they differed significantly in their endorsements of “Time heals all wounds” ($diff = 1.06$). Thus, people of different cultures might be similar regarding their belief that time management is important but might differ with respect to their feelings that control is sometimes elusive.

Second, respondents’ endorsements of “Time heals all wounds” were correlated positively with their tendencies to believe that they could be both present-oriented and future-oriented at the same time, and this was true regardless of culture. This pattern helps to confirm that both Asians and Anglos who are guided by the principles communicated by this proverb are more apt to make connections across time zones than those who are not.

And finally, participants’ “present orientation” scores influenced their endorsements of “Time heals all wounds” differently, depending on their cultural background. Among Asian Americans, these endorsements had a nonsignificant positive correlation with present-orientation levels; but among Anglo Americans, this correlation was negative. Although these results are tentative, they could indicate that Anglos find a present orientation to be inconsistent with a forward-looking stance, whereas Asians might be comfortable holding these two potentially contradictory views (see Peng & Nisbett, 1999, 2000).

CONCLUSIONS

The present chapter explores people’s time orientations from a cultural perspective, focusing on understanding the similarities and differences between East Asians and North Americans. When trying to understand ambiguous events or make decisions, North Americans have a tendency to be focused on the present. But East Asians, while grounded in the present as well, have a stronger tendency to reach to the past and future. East Asians, as compared to North Americans, are more likely to appreciate the causal chains connecting current situations to related past and future events

(Morris & Peng, 1994; Maddux & Yuki, 2001), to see the complex, uncontrollable nature of the future (Briley & Aaker, 2007; Ji et al., 2001), and to rely on their relevant past experiences when making decisions (Briley & Aaker, 2007).

These patterns could all be connected to differences across cultures in agency beliefs and consequent cognitive representations of past and future events. North Americans believe that the individual is the primary force determining outcomes, and their causal models center around the individual's intentions and actions. East Asians, who don't hold this belief, have causal models that center around the situations and events that impinge on the individual. North Americans' more simple mental models fit with their beliefs that they control their own destiny, and East Asians more complex models fit with their need to adjust to situations and events that they encounter. This pattern could have implications for the relative salience of temporally distant versus present experiences and feelings and, therefore, for their propensity to consider one or the other type of experience when developing judgments or deciding on actions. In particular, East Asians may be more likely to draw on time zones removed from the present—and to consider remembered (past) or anticipated (future) experiences—because, relative to North Americans, these representations are more vivid and salient.

Some other explanatory frameworks should be considered as well. For example, Hofstede's (2001) "long-term orientation" dimension could be useful for understanding the findings presented herein. This dimension, which captures aspects of Chinese cultural traditions conveyed in the teachings of Confucius, is associated with thrift and perseverance. Individuals who have a strong long-term orientation exhibit frugality and avoid impulse purchases (Bearden, Money, & Nevins, 2006).

Future research is needed to further develop this rather complex research area. A problem in probing this domain is that it is difficult to know with confidence which time zone a person is focusing on when they draw an inference or decide on a course of action. To illustrate, suppose that a person who is deciding whether or not to buy an ice-cream cone thinks about his favorite flavor, rocky road, and these positive thoughts compel him to get the cone. Thoughts about rocky road could pertain to a previous occasion on which this person ate this flavor (past), the delicious taste and creamy texture he can experience now (present), or the good reflections he anticipates having about this warm, leisurely afternoon eating rocky road (future). Indeed, knowledge from some combination of these time zones is likely to surface during the decision process.

In this regard, the intertemporal choice research paradigm (see Lowenstein, Read, & Baumeister, 2003) could offer a rich domain for cultural exploration. With this approach, preference for immediate utility (present focus) versus delayed utility (future focus) can be readily observed. A robust finding in the intertemporal choice literature is that people have a strong tendency to pursue immediate rather than delayed utility. But, this pattern could reflect the largely North American participant pool used for most of these studies. North Americans might discount future utility because relevant anticipations and future experiences are discounted or overlooked. This discounting could result because the representations of this future-oriented knowledge are vague and not particularly salient. Less discounting might occur for East Asians if their representations of the future are more vivid and better attended. Research that clarifies these issues would have implications for a wide range of judgments and decisions, including those related to consumption, spending, and conservation.

REFERENCES

- Anderson, C., Keltner, D., & John, O. P. (2003). Emotional convergence between people over time. *Journal of Personality and Social Psychology, 84*, 1054–1068.
- Baumeister, R. F., & Vohs, K. D. (2003). Willpower, choice, and self-control. In G. Loewenstein, D. Read, & R. Baumeister (Eds.), *Time and decision: Economic and psychological perspectives on intertemporal choice*. New York, NY: Russell Sage Foundation.

- Bearden, W., Money, R., & Nevins, J. (2006). A measure of long-term orientation: Development and validation. *Journal of the Academy of Marketing Science, 34*, 456–467.
- Bergkvist, L., & Rossiter, J. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research, 44*, 175–184.
- Block, R. A. (1990). Introduction. In R. A. Block (Ed.), *Cognitive models of psychological time*. Hillsdale, NJ: Erlbaum.
- Boniwell, I., & Zimbardo, P. (2004). Balancing time perspective in pursuit of optimal functioning. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice*. Hoboken, NJ: John Wiley & Sons.
- Boroditsky, L. (2001). Does language shape thought?: Mandarin and English speakers' conceptions of time. *Cognitive Psychology, 43*, 1–22.
- Boyd, J., & Zimbardo, P. (2005). Time perspective, health, and risk taking. In A. Strathman & J. Joireman (Eds.), *Understanding behavior in the context of time: Theory, research, and application*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Briley, D., & Aaker, J. (2007). Unpublished data.
- Briley, D., Morris, M., & Simonson, I. (2000). Reasons as carriers of culture: Dynamic versus dispositional models of cultural influence on decision making. *Journal of Consumer Research, 27*, 157–178.
- Briley, D., & Wyer, R. (2002). The effect of group membership salience on the avoidance of negative outcomes: Implications for social and consumer decisions. *Journal of consumer research, 29*, 400–415.
- Buehler, R., Griffin, D., & Ross, M. (1994). Exploring the “planning fallacy”: Why people underestimate their task completion times. *Journal of Personality and Social Psychology, 67*, 366–381.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously. *American Psychologist, 54*, 165–181.
- Chiu, C. Y., Leung, A., & Kwan, L. (2007). Language, cognition, and culture: Beyond the Whorfian hypothesis. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology*. New York: Guilford.
- Chiu, C. Y., & Hong, Y. Y. (2007). Cultural processes: Basic principles. In E. T. Higgins & A. E. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (2nd ed.). New York: Guilford.
- DeVoe, S. E., & Pfeffer, J. (2007a). Hourly payment and volunteering: The effect of organizational practices on decisions about time use. *Academy of Management Journal, 50*, 783–798.
- DeVoe, S. E. & Pfeffer, J. (2007b). When time is money: The effect of hourly payment on the evaluation of time. *Organizational Behavior and Human Decision Processes, 104*, 1–13.
- Dunning, D., Griffin, D. W., Milojkovic, J. D., & Ross, L. (1990). The overconfidence effect in social prediction. *Journal of Personality and Social Psychology, 58*, 568–581.
- Dyal, J. A. (1984). Cross-cultural research with the locus of control construct. In H. M. Lefcourt (Ed.), *Research with the locus of control construct, 3: Extensions and limitations* (pp. 209–306), Orlando, FL: Academic Press.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review, 27*, 31–41.
- Epel, E. S., Bandura, A., & Zimbrado, P. G. (1999). Escaping homelessness: The influences of self-efficacy and time perspective on coping with homelessness. *Journal of Applied Social Psychology, 29*(3), 575–596.
- Evans, J., Kunda, G., & Barley, S. (2004). Beach time, bridge time, and billable hours: The temporal structure of technical contracting. *Administrative Science Quarterly, 49*, 1–38.
- Franklin, B. (1748/1961). Advice to a young tradesman. In L. W. Labaree & W. J. Bell (Eds.), *The papers of Benjamin Franklin: January 1, 1745, through June 30, 1750* (Vol. 3, pp. 306–308). New Haven, CT: Yale University Press.
- Frederick, S., Loewenstein, G., & O'Donaghue, T. (2003). Time discounting and time preference: A critical review. In G. Loewenstein, D. Read, and R. Baumeister (Eds.), *Time and Decision*, (pp. 89–113). New York: Russell Sage Foundation.
- Gonzalez, A., & Zimbardo, P. G. (1985). Time in perspective. *Psychology Today, 19*, 21–26.
- Greene, B. (2004). The time we thought we knew. *New York Times*, Opinion. Published online January 1; accessed April 1, 2008. at <http://query.nytimes.com/gst/fullpage.html?res=9A05EED81E3EF932A35752C0A9629C8B63&sec=&spon=&pagewanted=2>
- Griffin, D. W., Dunning, D., & Ross, L. (1990). The role of construal processes in overconfident predictions about self and others. *Journal of Personality and Social Psychology, 59*, 1128–1139.
- Heidegger, M. (1927). *Being and time*. Halle, Germany: Niemeyer.
- Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations. Thousand Oaks, CA: Sage Publications.
- Hornik, J., & Zakay, D. (1996). Psychological time: The case of time and consumer behavior. *Time & Society, 5*, 385–397.

- James, W. (1950). *The principles of psychology*. New York: Dover.
- Ji, L., Nisbett, R. E., & Su, Y. (2001). Culture, change and prediction. *Psychological Science*, 12, 450–456.
- Ji, L. J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationships in the environment. *Journal of Personality and Social Psychology*, 78, 943–955.
- Kahneman, D., & Lovallo, D. (1991). Timid choices and bold forecasts: A cognitive perspective on risk taking. *Management Science*, 39, 17–31.
- Kahneman, D., & Tversky, A. (1979). Intuitive prediction: Biases and corrective procedures. *Management Science*, 12, 313–327.
- Kant, I. (1965). *Critique of pure reason* (N. Smith, Trans.). New York: St. Martin's Press.
- Kaveny, M. C. (2001). Billable hours in ordinary time: A theological critique of theist of time in professional life. *Loyola University Chicago Law Journal*, 33, 173–220.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110, 265–284.
- Keltner, D., Young, R. C., Heerey, E. A., Oemig, C., & Monarch, N. D. (1998). Teasing in hierarchical and intimate relations. *Journal of Personality and Social Psychology*, 75, 1231–1247.
- Keough, K. A., Zimbardo, P. G., & Boyd, J. N. (1999). Who's smoking, drinking, and using drugs? Time perspective as a predictor of substance use. *Basic and Applied Social Psychology*, 21, 149–164.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Lee, F., Hallahan, M., & Herzog, T. (1996). Explaining real-life events: How culture and domain shape attributions. *Personality and Social Psychology Bulletin*, 22, 732–741.
- Lee, F., & Tiedens, L. Z. (2001). Is it lonely at the top? The independence and interdependence of power holders. *Research in Organizational Behavior*, 23, 43–91.
- Lennings, C. J. (1996). Self-efficacy and temporal orientation as predictors of treatment outcome in severely dependent alcoholics. *Alcoholism Treatment Quarterly*, 14, 71–79.
- Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, 75, 5–18.
- Liberman, N., Trope, Y., & Stephan, E. (2007). Psychological distance. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social Psychology: Handbook of Basic Principles*. New York: Guilford Press.
- Liu, W., & Aaker, J. L. (2007). Do you look to the future or focus on today? The impact of life experience on intertemporal decisions. *Organizational Behavior and Human Decision Processes*, 102, 212–225.
- Lowenstein, G., Read, D., & Baumeister, R. (2003). *Time and decision*. New York: Russell Sage Foundation.
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46, 137–155.
- Maddux, W. W., Lau, I., Chiu, C. Y., Hong, Y. Y., & Yuki, M. (2007). *Beneath the surface of the "ripple effect": Understanding the underlying nature of cultural differences in perceptions of event consequences*. Working paper.
- Maddux, W. W., & Yuki, M. (2006). The "ripple effect": Cultural differences in perceptions of the consequences of events. *Personality and Social Psychology Bulletin*, 32, 669–683.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Menon, T., Morris, M. W., Chiu, C. Y., & Hong, Y. Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology*, 76, 701–17.
- Miller, J. G. (1984). Culture and the development of everyday social explanation. *Journal of Personality and Social Psychology*, 46, 961–978.
- Morling, B. (2000). "Taking" an aerobics class in the U.S. and "entering" an aerobics class in Japan: Primary and secondary control in a fitness setting. *Asian Journal of Social Psychology*, 3, 73–85.
- Morling, B., & Evered, S. (2006). Secondary control reviewed and defined. *Psychological Bulletin*, 132, 269–296.
- Morling, B., Kitayama, S., & Miyamoto, Y. (2002). Cultural practices emphasize influence in the United States and adjustment in Japan. *Personality and Social Psychology Bulletin*, 28, 311–323.
- Morris, M. W., Menon, T., & Ames, D. (2001). Culturally conferred conceptions of agency: A key to social perception of persons, groups, and other actors. *Personality and Social Psychology Review*, 5, 169–82.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, 67, 949–971.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291–310.

- Norenzayan, A., Choi, I., & Nisbett, R. E. (2002). Cultural similarities and differences in social inference: Evidence from behavioral predictions and lay theories of behavior. *Personality and Social Psychology Bulletin, 28*, 109–120.
- Nussbaum, S., Trope, Y., & Liberman, N. (2003). Creeping dispositionism: The temporal dynamics of behavior prediction. *Journal of Personality and Social Psychology, 84*, 485–497.
- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology, 81*, 549–565.
- Perlow, L. A. (1997). *Finding time: How corporations, individuals and families can benefit from new work practices*. New York: Cornell University Press.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist, 54*, 741–754.
- Ross, L. (1977). The intuitive psychologist and his shortcomings. In L. Berkowitz (Ed.), *Advances in experimental social psychology, 10* (173–220). New York: Academic Press.
- Rossiter, J. R. (2002). The C-OAR-SE Procedure for Scale Development in Marketing. *International Journal of Research in Marketing, 19*, 305–335.
- Rothbaum, E., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology, 42*, 5–37.
- Sastry, J., & Ross, C. E. (1998). Asian ethnicity and the sense of personal control. *Social Psychology Quarterly, 61*, 101–120.
- Smith, P. K., & Trope, Y. (2006). You focus on the forest when you're in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology, 90*, 578–596.
- Stapel, D. A., & Koomen, W. (2001). I, we, and the effects of others on me: How self-construal level moderates social comparison effects. *Journal of Personality and Social Psychology, 80*, 766–781.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review, 110*, 403–421.
- Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychology, 17*, 83–95.
- "The Atomic Age of Time Standards," National Institute of Standards and Technology, U.S. Government (2007). Webpage accessed 1/08: <http://physics.nist.gov/GenInt/Time/atomic.html>
- "Time Is Money, Professor Proves," CNN/Sci-tech (2002). CNN.com, 5/29, <http://archives.cnn.com/2002/TECH/science/05/29/time.money/>
- U.S. National Institute of Standards and Technology (2007). Webpage accessed 1/08: <http://physics.nist.gov/GenInt/Time/ancient.html>
- Vallone, R. P., Griffin, D. W., Lin, S., & Ross, L. (1990). The overconfident prediction of future action and outcomes by self and others. *Journal of Personality and Social Psychology, 58*, 582–592.
- Wang, Q., & Ross, M. (2007). Culture and memory. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 645–667). New York: Guilford.
- Weber, E. U., Hsee, C. K., & Sokolowska, J. (1998). What folklore tells us about risk and risk taking: Cross-cultural comparisons of American, German, and Chinese proverbs. *Organizational Behavior and Human Decision Processes, 75*, 170–186.
- Weber, E. U., & Hsee, C. K. (1998). Cross-cultural differences in risk perception but cross-cultural similarities in attitudes towards risk. *Management Science, 44*, 1205–1217.
- Weisz, J. R., Rothbaum, F. M., & Blackburn, T. C. (1984). Standing out and standing in: The psychology of control in America and Japan. *American Psychologist, 39*, 955–69.
- Zimbardo, P., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology, 66*, 742–752.
- Zimbardo, P. G., Keough, K. A., & Boyd, J. N. (1997). Present time perspective as a predictor of risky driving. *Personality and Individual Differences, 23*, 1007–1023.

Section V

Bicultural and Intercultural Process

19 The Bicultural Self and the Bicultural Brain

Sik Hung Ng and Shihui Han

If ever there were a “core business” for psychology, it is neither culture nor the brain. Yet it would be hard to imagine how the core business can be pursued for long without engaging both. James (1890/1950), Hebb (1949), Luria, (1974), Campbell (1975), Moscovici (1976), and Vygotsky (1978), among others, have drawn attention to both culture and the brain as essential for the study of a range of psychological phenomena. In his recent book *Brain and Culture*, Wexler (2006) summarizes research showing the dynamic relationship between culture and the brain. Culture, broadly defined to include environmental inputs, affects the nature and meaning of sensory stimulation that is fundamental for the brain to develop. By setting the cultural environment and transmitting it to the next generation, each generation fashions the brains of the next. As the brain matures, its neuroplasticity decreases. This, in turn, puts increasing pressure on adults to adjust the external environment to maintain its fit with the brain’s internal structure.

The pioneering work of Mead (1934) and the aptly called cross-cultural challenge to social psychology (Bond, 1988) since the 1970s have established the influence of culture sufficiently firmly to expand social psychology into a global enterprise while retaining its Euro-American birthmarks. Parallel to the cross-cultural challenge (and other challenges as embodied in social identity theory and social constructionism), there is the ascent of social neuroscience. This relatively recent development, aided by powerful brain imaging techniques and convergent multidisciplinary interest in shared problems such as self-awareness, is set to stimulate a new wave of rewarding challenge to social psychology (Cacioppo, Visser, & Pickett, 2005; Harmon-Jones & Winkielman, 2007).

A brainy social psychology that is also cultural represents an exciting prospect that is hard to ignore or resist. The present chapter attempts to pursue this exciting prospect by focusing on the bicultural selves and bicultural brains of bicultural individuals. In essence, it attempts to show how bicultural individuals can be primed experimentally to switch from one culture-preferred way of self-construal to another, postulates what the corresponding consequences are, and measures their manifestations in *memory* performances and *neural* activities.

The mnemonic and neural consequence of culture priming that is of particular interest here is the inclusion of others in the individual self. Within the broad topic of self, the specific issue of including or excluding others, such as mother, from the individual self is central to the interdependent versus independent self-construal comparison between East Asians and Westerners (Markus & Kitayama, 1991). Conventional measurements of self and self-inclusiveness in social and cross-cultural psychology, however, rely heavily on questionnaire responses that are rich in content but lack objective criteria for determining whether they are correct or incorrect. Memory performances derived from the self-reference effect (SRE) in cognitive psychology offer a more objective criterion and therefore can complement questionnaire responses (Rogers, Kuiper, & Kirker (1977). The SRE approach can also be applied to brain imaging to identify the neural substrates that underpin the mental representations of self and others, thereby bridging mnemonic and neural data in the common pursuit of finding out who are or are not included in the individual self. The rest of the present chapter will show how this can be accomplished. As well, it will demonstrate how the bicultural

brain can be culturally primed to either include others in, or exclude them from, the same neural area that is activated when representing the self. The results of this and similarly pioneering projects, though preliminary, will set the scene for social neuroscience to tip the dynamic relationship between culture and brain in favor of culture. That is, although culture is limited by what the brain can or cannot do, it can also shape brain functions, at least in the neural representation of self and others.

THE EAST-WEST CULTURAL DIMENSION OF SELF-INCLUSIVENESS

Since the early 1970s, when the *International Association for Cross-Cultural Psychology* held its inaugural conference in Hong Kong, the bulk of cross-cultural studies has revolved around a comparison of Easterners (typically Asians) and Westerners (typically Euro-Americans). Anthropological psychology, under the shelter of British colonialism, ventured much further afield (Jahoda, 1982), and its experimental wing has produced some of the most brilliant demonstrations of the effects of culture (broadly defined in ecological term) on perception (Deregowski, 1970). The post-1970 prominence of the East-West cultural dimension is reflected in two of the most widely cited constructs in cross-cultural psychology, namely, collectivism versus individualism (Hofstede, 1980), and interdependent versus independent self-construal (Markus & Kitayama, 1991). The same general contrast recurs in works on conjoint and disjoint models of agency (Markus & Kitayama, 2003), as well as on relatedness and autonomy (Kağıtçıbaşı, 2005). A recent review by Brewer and Chen (2007) attests to the same fundamental contrast between East and West, with the qualification that “relational collectivism,” rather than collectivism in general, is the distinguishing factor. We shall revisit this point later.

Critics have pointed out that the constructs of individualism and collectivism (especially collectivism) are fuzzy, their measurement is imprecise, and they may coexist in varying degrees rather than separately (e.g., Oyserman, Coon, & Kemmelmeier, 2002). This chapter is not the place to delve on these and other criticisms—to do so would land us on a minefield that is hard to clear. Instead, our purpose is to glean from the two sets of constructs a contrast between the *socially connected* and the *individuating unique* self. Social connectedness is more characteristic of Easterners, whereas individuating uniqueness is more characteristic of Westerners. A cognitive consequence of the contrast is that significant others (e.g., mother) are more likely to be mentally represented as part of the self when the culture that has shaped it stresses social connectedness (collectivism, interdependent self-construal, etc.) than when it values individuating uniqueness (individualism, independent self-construal, etc.). In other words, the selves of Easterners are more inclusive of significant others than that of Westerners.

The cultural dimension of self-inclusiveness implies that a particular level of self-definition (e.g., self as unique) is dominant over another (e.g., self as socially connected) due to differences in cultural complexity, values and beliefs, socialization practices, and so forth (Markus & Kitayama, 1991; Triandis, 1989). It is a particular way of life, a way of striking a balance between the universal needs for uniqueness and communality and, resulting from this, a habitual way of representing the self and others. In cross-cultural psychology, the habitual self-definition that predominates in one culture is assumed to be stable enough for comparison with similarly stable but different self-definitions in other cultures. This rather static view runs the risk of presenting the East-West cultural dimension as mutually exclusive; that is, a culture can be either individualistic or collectivistic but not both. This mischievous stance was recognized but tolerated during the early days of cross-cultural psychology in its quest for differences between cultures, but has since been corrected as the field matures (e.g., Brewer & Chen, 2007; Oyserman & Lee, 2007). Plainly no culture can survive for long without having at its disposal the resources and normative pressures for its citizenry to think and behave like an individualist and like a collectivist in response to different situations and different psychological needs.

Note that self-inclusiveness, as used herein, should not be confused with social-emotional intimacy. When a significant other such as mother is mentally represented as part of a person's self, this does not necessarily mean that the person must be emotionally closer to mother when compared to another person whose self-definition does not include mother. The two persons may belong to different cultures that typically include or exclude others from defining the self. Thus, although interpersonal intimacy can increase cognitive inclusion and, conversely, distance can increase exclusion, the two are not synonymous. The distinction between interpersonal closeness and the cognitive structure of the self opens up the possibility of priming the self (of Easterners) to behave so uniquely that even mother will be excluded from it and, conversely, of priming the self to behave so connectedly that even a significant other who is disliked will be included in it.

MECHANISMS OF INCLUDING OTHERS IN THE SELF

Brewer and Gardner (1996) propose three levels of self-definitions giving rise to the personal, relational and collective selves. The core of personal self is made up of one's unique qualities, the relational self is based on connections and role relationships with significant others, and the collective self is defined by group memberships and associated group characteristics. The inclusion of others would be minimal in the personal self and maximal in the relational and collective selves. The latter two selves "represent two different forms of social identification, that is, processes by which the individual self is extended to include others as integral to the self-concept" (Brewer & Chen, 2007, p. 137). These two mechanisms can be illustrated by the self-expansion model and self-categorization theory.

Studies associated with the self-expansion model (also known as the including-other-in-self model) have found that significant others who are also *close* or intimate to the person are included in the person's self: "participants in a close relationship include each other in their selves in the sense that other's perspectives, resources, and identities are to some extent one's own" (Aron, Aron, & Norman, 2004, p. 111). For example, people refer to close others as "we," "us" and "our" when describing the self-other relationship, suggesting that close others are *perceived* as part of the self (Agnew, Van Lange, Rushbult, & Langston, 1998). Another line of research, also focusing on close others, has yielded supportive evidence that relates more directly to the inclusion of close others in the *cognitive structure* of the self. Using a "confusions" experimental procedure, Mashek, Aron, and Boncimino (2003) asked participants to rate different traits for self, a close (e.g., best friend, closest parent) and a nonclose (e.g., Bill Clinton, Michael Jordan) person, followed by a source recognition task of deciding which one of the three persons had been rated on each trait. Participants were often confused about the correct person, for example, mistaking best friend for self. Such confusions, referred to as "source confusions," were greater between a close other (e.g., best friend) and self than between a nonclose other (e.g., Bill Clinton) and either self or close other. Although the greater confusion between self and close others could be due to the individual's greater familiarity or similarity with close others, the researchers were careful to rule out this possibility before concluding that the results evidenced an overlap between the cognitive representations of self and close others.

Self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) would not rule out nonclose others or any other person as possible candidates for inclusion in the (collective) self. Intimacy will strengthen shared group membership. What is important, however, is the shared group membership that results from self-categorization and other intergroup processes (e.g., externally imposed social categorization), rather than interpersonal closeness per se. This is shown in minimal group experiments in which the mere categorization of people into anonymous groups is sufficient to trigger feelings of "us" and discrimination against "them" (e.g., Turner, 1978).

To sum up thus far, including others in the individual self is driven by *interpersonal* and *intergroup* processes in which intimacy plays a key but nonexclusive role. Collectively, these processes seem to have exhausted all possible means of including others in the self, at least insofar as the

tripartite model of self is concerned. However, a third mechanism of a *cultural* nature can be envisaged for bicultural individuals who can access not one but two culturally preferred ways of representing self and others. Bicultural individuals who can switch between the socially connected and the individuating unique self would have the cultural resources to increase or decrease self-inclusiveness. This bicultural switching mechanism does not imply that only bicultural individuals can alter their self-inclusiveness. Their monocultural counterparts clearly can do the same through the interpersonal and intergroup processes that have been identified. Rather, the point is that a bicultural switching mechanism may be available, to which more and more individuals will have access as they become bicultural.

BICULTURAL POSSIBLE SELVES

Bicultural switching assumes that bicultural individuals can access one or the other culture's meaning system, and through this, the corresponding cultural self. Culture-1 self and culture-2 self can be likened to the idea of possible selves (Markus & Nurius, 1986). For Westernized Chinese in Hong Kong as an example, culture-1 self would be the Chinese self, and culture-2 self the Western self. Psychological integration of the two selves may result in varying degrees of mixing or hybridization (see Benet-Martínez & Haritatos, 2005, and LaFromboise, Coleman, & Gerton, 1993, for a more elaborate discussion of bicultural integration). This hybrid self, together with the culture-1 and -2 selves, constitutes the bicultural self, in much the same way as bilingualism is made up of not only the two original languages, but also a mixed code (Bhatia & Ritchie, 2004; Gibbons, 1987). Which particular self among the three is accessed depends on its situational salience. Typically the hybrid self is habitually (chronically) more salient, though the person is not consciously aware of it. However its moment-to-moment salience over the other two selves will depend on what comes to mind here and now. For example, reflection on one's culture-1 heritage will call out the culture-1 self, while that of one's culture-2 heritage will enhance the accessibility of the culture-2 self. This perspective opens up the possibility of using culture primes to untangle culture-1 and -2 selves from the overall bicultural self, thereby testing the predicted causal effects of the two corresponding cultures on self-inclusiveness.

Srull and Wyer (1979) integrated a number of social cognition findings to show that a conceptual category or schema could be activated or "primed" by calling attention to representative instances, thereby becoming more accessible for use in encoding and interpreting information received in other contexts. The conceptual category or schema of "hostility," for example, could be primed by asking research participants to construct three-word sentences from sets of four words that conveyed hostility (e.g., "leg break arm his"). Then, in an ostensibly unrelated task, these participants read a description of a target person's behaviors that were ambiguous with respect to this attribute. Their ratings of the target increased with the number of times that hostility had been primed, but decreased with the time interval between the priming task and exposure to the target information.

Note that Srull and Wyer (1979) did not frame their hypothesis of category (schema) accessibility in terms of possible selves because they did not prime the self-concepts or self-cognitions directly. Later experiments that did prime the self directly provided clearer evidence of how the multiplicity of possible selves can be experimentally called out (e.g., Trafimow et al., 1991). In a review of the mechanisms for explaining the effects of person stereotype primes on behavior, Wheeler and Petty (2001) developed an argument for possible selves. Earlier research has already established a high degree of plasticity of the working self-concept, that its content can be altered by environmental influences. By the same token, a stereotype prime could activate a stereotype-consistent self that serves to guide behavior. Individuals who were primed with an elderly stereotype, for example, walk more slowly (Bargh, Chen, & Burrows, 1996). The "possible self" explanation advocated by Wheeler and Petty (2001) offers an alternative to the popular account based on biased perception. According to the latter, primes work by causing biased perception of the target person or situation. In the possible-self account, by contrast, "perceptions of other individuals or of the situation are not

altered, but instead, implicit or explicit perceptions of oneself change as a function of the prime" (Wheeler & Petty, 2001, p. 815).

The possible-self explanation fits well with our current study of self-inclusiveness. Like self-inclusiveness, possible selves signify a dynamic self, responsive to the external situation. This assumption is consistent with the dynamic views of James (1890/1950), Mead (1934), and self-categorization theory (Turner et al., 1987). By testing the cognitive effects of bicultural primes on self-inclusiveness and by extending the test to the bicultural brain, we hope to add a bicultural dimension to the dynamic self.

CULTURE PRIMES AND THE MEASUREMENT OF THEIR EFFECTS ON SELF-INCLUSIVENESS

Oyserman and Lee (2008) identified seven types of prime in their review of 67 studies on the effects of priming individualism and collectivism. Among their many observations, the effect sizes varied according to prime type. Six of the seven primes produced small to moderate effect sizes, in comparison with the weak and sometimes contradictory effects of the language prime. Those six primes all referenced individualism and collectivism directly, but otherwise had little to do with culture. For example, in the Similarities and Differences with Family and Friends Task (Trafimow, Triandis, & Goto, 1991), individualism is primed by instructing participants to "think of what makes you different from your family and friends. What do you expect yourself to do?" In contrast, collectivism is primed by instructions to "think of what you have in common with your family and friends. What do they expect you to do?" The language prime was not a task but the language of participating in the experiment, which was either English or the bilingual participants' heritage language. Unlike the other primes, it was not directly related to individualism or collectivism but relied on its association with the corresponding culture to cue individualism or collectivism (e.g., English was assumed to carry with it the knowledge about Anglo-Saxon or American cultures that in turn implied individualism). Its mostly weak and sometimes contradictory effects indicate that it would be a poor culture prime, although strong effects are sometimes reported (e.g., Briley, Morris, & Simonson, 2005).

More promising are pictorial images of cultural icons, which have demonstrable success at least in cuing Chinese and American cultures to induce prime-consistent behavior and cognition among bicultural individuals (Hong, Morris, Chiu, & Benet-Martínez, 2000). However, there is room for improving the content of the pictorial images to suit the local situation. For ethnic Chinese in Hong Kong, for example, those who are bicultural are more likely to have been Westernized in the broader Euro-American sense than in the narrow American mold, as depicted in Hong et al. (2000). That is, it would have been more correct to refer to their culture-2 self as Western than as American. Likewise, their Chinese self would have been under represented by Hong et al.'s (2000) Chinese cultural icons, which contained Mainland Chinese or classical images but no Hong Kong Chinese icons. Ng and Lai (in press) developed an enlarged pool of prototypical images for priming the Chinese and Western selves, from which 13 matched pairs were selected from popular nominations to represent five cultural domains: food and drink, music and arts, popular movie stars, religion and legend, as well as folklore and famous buildings. For example, Bruce Lee (kung fu) would be paired with Roger Moore (James Bond) under the movie stars category. The redesigned sets of bicultural primes proved to be effective (see below).

The self-reference effect identified by Rogers et al. (1977) offers a way of conceptualizing and measuring the inclusion of others in the cognitive structure of the self. Of all cognitive systems, the self is the most extensive one for organizing and retrieving memory (Conway & Pleydell-Pearce, 2000). Information is more organized and elaborated when it references the self rather than the non-self, and hence is better recalled later. Thus, a person remembers the trait word *clever* better after answering the self-referencing question, "Does the word *clever* describe you?" than after answering

semantic questions such as, “Does the word *clever* mean the same as *wise*?” or, “Is the word *clever* written in bold or light font?”

The effect of self-referencing is substantially greater than the effect of non-person semantic encoding. It is also greater than the effect of other-referencing when the other is a specific person (e.g., “Does the word *clever* describe your mother?”). In their meta-analytic review of studies published between 1974 and 1994, Symons and Johnson (1997, p. 377) concluded: “Thus, results show that, although study effect sizes are inconsistent, the self-reference effect tends to occur when one compares self-referent encoding with semantic encoding and other-referencing.” The reviewers also conducted extensive model testing based on their meta-analysis, and found a reliable difference between two categories of others. Specifically, others who were *intimately* associated with research participants (e.g., Mother) facilitated memory performance almost to the same extent as self, whereas those who were merely *familiar* (e.g., Ronald Reagan) did not. The results indicate that there is overlap between the cognitive representations of self and close others, so that the encoding of information in other-referencing is actually routed through the self to produce self-like effects. According to this view, researchers may use comparisons in memory performance under self-reference and other-reference conditions to measure self-other differentiation and, therefore, to infer if the self is intertwined with others. As memory performance can be measured objectively without being easily detected of its true purpose by research participants, it is superior to questionnaire or self-descriptions in providing a more rigorous and implicit measure of inclusion.

Earlier studies in the monocultural tradition (no culture priming) found that Mother was included as part of self among ethnic Chinese students in Beijing (Qi & Zhu, 2002; Zhu & Zhang, 2002), but that this was not the case among Westerners. These results suggest that bicultural Chinese may be primed to shift from Mother inclusion (under Chinese culture priming) to Mother exclusion (under Western priming). The results of a bicultural priming experiment with Beijing Chinese reported in Sui, Zhu, and Chiu (2007), though not framed in terms of self-inclusiveness, can be interpreted as showing that although American priming led to Mother exclusion (thus reproducing the behavior typical of Westerners), Chinese priming also led to Mother exclusion (thus failing to reproduce the behavior typical of unprimed Chinese). The size of exclusion (effect size) was predictably greater under American than under Chinese priming in support of the predicted priming effect, although the lack of a significance test means that the priming effect remains inconclusive.

As noted earlier, “others” are not confined to Mother or similarly intimate persons. Nonintimates may also be connected to self through role relationships or shared group membership. To differentiate this second category of others from Mother, they will be referred to hereafter as a significant other with whom the person does not wish to identify, for example, a disliked boss. The “nonidentified person” (NIP) is a relatively new element in this area of research, which has typically used a public or historical figure as a basis for comparison. For example, Zhu and Zhang (2002) used Luo Xun, a famous revolutionary writer of the last century. As Luo Xun (or Chairman Mao, or any other *named* figure) would mean different things to different people, it is not at all certain what this condition actually represents. In contrast, an NIP (someone who has influence on one’s life but is disliked) is nominated by the participant himself or herself, thus ensuring a high degree of homogeneity of meaning across participants. If the effect of self-referencing differs from the effect of NIP-referencing when Western culture is primed, this would not be too striking. If the difference becomes nonsignificant when Chinese culture is primed, however, the result would be a convincing demonstration of self-inclusiveness.

Pulling all the relevant threads from cross-cultural psychology (the East-West cultural dimension of self-inclusiveness), social psychology (self-expansion model and self-categorization theory), and cognitive psychology (priming, possible selves, and self-reference effects) leads to the following general hypothesis:

When the more inclusive interdependent Chinese self is rendered salient by Chinese culture primes, Mother and NIP are represented as closely connected to the self, and hence the memory of

Mother- and even NIP-referencing information will *not* be significantly inferior to that of self-referencing information. Under Western culture priming, the less inclusive independent Western self becomes salient. As a result, NIP and Mother are represented as distinct from self, and consequently the memory of NIP- and even Mother-referencing information *will be significantly inferior* to that of self-referencing information.

COGNITIVE EVIDENCE

A study of 187 bicultural undergraduates of ethnic Chinese origin supported the general hypothesis (Ng & Lai, *in press*). Participants were drawn from a wide range of disciplines (social sciences, humanities, business, engineering, and science) at a university where prior surveys have established that the average Chinese self and Western self were both above the scalar midpoint. Chinese and Western selves were measured by four items and were validated against language use, entertainments and lifestyle. For example, a strong Chinese self was found to be associated with Chinese speaking (e.g., greater usage of Chinese, more frequent switching to Chinese in bilingual settings), preference for Chinese medium entertainments, participation in Chinese festivals and customs, and so forth. The pattern of behavior and lifestyle associated with the Western self was reversed in the predicted direction of the English language and Western lifestyle (Ng, Yam, & Lai, 2007). The measure has since been used in two additional surveys covering a wide range of students at the same university. Across three samples ($N_s=289, 290$, and 472), the overall means of Chinese and Western selves were above the scalar midpoint (4 on a 7-point scale or 3.5 on a 6-point scale) on the strong side of the scale.

Participants were assigned randomly to either the Chinese or Western culture priming condition. Priming consisted of viewing the 13 pictorial icons described above, answering a culture-naming question (all participants named correctly the culture represented by the icons), and writing a paragraph on the characteristics of the culture and its influence on their personal development. After priming, participants judged 15 positive and 15 negative trait words referencing either Self ("Does the word describe you?"), Mother ("Does the word describe your mother?"), an NIP ("Does the word describe ___?"), or Font ("Is the word printed in bold or light font?"). About 20 persons were assigned to each of the eight combinations of priming and encoding conditions.

The rest of the experiment followed standard procedures in SRE research. Participants viewed a nature film for about 20 minutes (to distract them from rehearsing the trait words). They were then given a surprise task of recognizing which words had been presented before. The 30 presented words were mixed with 15 positive and 15 negative nonpresented words for the recognition test. If a word was recognized as presented, the participant also reported if he or she *remembered* it or merely *knew* that it had been presented. "Remember," not "know," requires the self doing the remembering and was therefore connected with the autonoetic conscious awareness of self, thereby providing a measure of recollective experience for testing the SRE (Gardiner et al., 1998; Tulving, 1999). The remember/know forced choice paradigm, which is a standard procedure in SRE research, helps participants understand better the criteria of "remember" and thereby increases the reliability of its measurement. Rate of correct recognition was adjusted for false alarms (nonpresented words falsely recognized as presented) and expressed as d' . The second memory performance test was based on "remember" responses to presented words, adjusted for those that were not presented.

The trait words were presented in Chinese characters only so as to provide a uniform test across conditions. The oral instruction was given in Chinese (Cantonese) or English counterbalanced across priming conditions to reduce the potential bias of language. Prior to the main analyses, language differences were screened and found to be nonsignificant. Possible confounds due to encoding time (interval between presentation of trait word and key press to indicate judgment) was also screened. In the Font condition, encoding time was correlated significantly with d' ($r_{47} = .28, p = .05$) and Remember response ($r_{47} = .34, p < .05$). That is, superior memory performances in the Font

TABLE 19.1
Cell Sizes, and Means of Encoding Time, d', R, and K.

	n	ET	d'	R	K
Western priming					
Self	25	1.56	2.75	0.71	.08
Mother	21	1.64	1.96	0.60	.03
Non-identified person	21	2.23	1.92	0.56	.05
Font	24	1.26	1.09	0.33	.04
Chinese priming					
Self	23	1.60	2.51	0.62	.13
Mother	26	1.82	2.39	0.69	.02
Non-identified person	24	2.03	2.43	0.65	.07
Font	23	1.26	0.91	0.23	.08

Note: n = cell sizes. ET = encoding time(s). d' = rate of correct recognition based on a sensitivity measure of the ability to discriminate presented words from nonpresented words. R = adjusted rate of "remember" judgments. K = adjusted rate of "know" judgments.

Source: Abridged from Ng, S.H., & Lai, J.C.L. (in press). Effects of cultural priming on the social connectedness of the bicultural self: A self-reference effect approach. *Journal of Cross-Cultural Psychology*.

condition that did not involve person-referencing required longer encoding time. In the Self, Mother and NIP conditions, the correlations were nonsignificant (r_s varied from = -.09 to .18), indicating that memory performances in these critical person-referencing conditions were largely independent of encoding time.

Table 19.1 shows the encoding time, d', Remember (R), and Know (K) means. Planned comparisons were conducted to tease out various aspects of the general hypothesis. First, memory of words referencing Self was found to be superior (d' and R) to that referencing Font, regardless of priming. In contrast to this invariant Self versus Font comparison, the Self versus Mother and the Self versus NIP contrasts varied with priming as predicted. When the Western culture was primed, the two contrasts were significant and in favor of Self for both d' and R, suggesting the exclusion of NIP and even Mother from the Self. When the Chinese culture was primed, none of the contrasts were significant, suggesting the inclusion of Mother and even NIP in the Self. Whilst the contrasts so far were concerned with their significance *within* Western and Chinese priming conditions separately, further contrasts were conducted to test for changes *across* priming conditions. Consistent with the general hypothesis, the Self-Mother and the Self-NIP contrasts were greater under Western than under Chinese priming, whereas the Self-Font contrast was not.

As reported fully in Ng and Lai (in press), most of the significant contrasts summarized above surpassed the .05-level, but some dropped slightly below it (mainly those involving tests across priming conditions). The planned contrasts, though large in number, were based on a regression approach to ANOVA that obtained the respective unstandardized coefficients, standard errors, and respective *t*-values based on the full dataset for reducing experiment-wise error rate and Type I error while increasing power. Robustness of the findings was enhanced further by the fact that Mother and NIP, and d' and R converged in producing similar results. The overall pattern of results amounts to a rigorous demonstration of the general hypothesis. Together with the Beijing Chinese study (Sui et al., 2007), the Hong Kong Chinese study by Ng and Lai (in press) are opening up an SRE approach to the experimental study of the effects of culture primes on the cognitive structure of the selves of bicultural individuals.

NEURAL EVIDENCE

The strong interest in the self shown by cognitive, cross-cultural, and social psychologists parallels a similarly strong interest shown by neuroscientists. An early book coauthored by Karl Popper and John C. Eccles bears the telling title of *The Self and Its Brain* (1977). Note the “*Its*” in the book title. More recent publications by Cacioppo et al. (2005) and Harmon-Jones and Winkielman (2007) assign a prominent place to self, covering such topics as self-awareness, face recognition, body recognition, autobiographical memory, and self-knowledge. The interest revolves around finding a material base in the brain for the elusive but subjectively real “self,” as reflected in, for example, the localization of neural activities in specific regions of the brain when the self is activated by self-referencing stimuli and other means. The quest for the neural substrate of the self often leads to the more ambitious question of the extent to which the processing of self-relevant information is functionally independent from the processing of nonself information. Such structural localization and functional independence, if established, would support the claim that the self has a “special” place in the brain. Such claims, however, are extremely difficult to sustain as advance in cognitive and social neuroscience keeps throwing up more questions than answers (Gillihan & Farah, 2005).

Leaving aside the question, “Is the self special?” the remaining portion of the present chapter will focus on studies that bear on the neural representation of self and others, how the representation may differ for brains shaped by Western and Eastern cultures and, assuming that such differences exist, whether they can be replicated in the bicultural brain by appropriate culture priming.

Most relevant to the purpose at hand is the review by Heatherton, Macrae, and Kelley (2004) of studies that attempt to identify the neural substrates of the SRE. In one study (Kelley et al., 2002), activation in the left prefrontal region as revealed by functional magnetic resonance imaging (fMRI) was common to both self- and other-reference, whereas activation in the ventral medial prefrontal cortex (MPFC) was distinctive to self-reference, thus raising the intriguing possibility that brain activities in the ventral MPFC might have been responsible for the superior self-reference effect relative to other-reference. To test this possibility, Macrae, Moran, Heatherton, Banfield, and Kelley (2004) compared brain activation elicited by items that were later remembered and by those that were later forgotten. The results showed that greater ventral MPFC activities increased better memory of items. Combining these results with those from other sources, Heatherton et al. (2004, p. 191) concluded with the speculation that “the self-reference effect in memory depends on an intact ability to be self-reflective and that neural activity in MPFC reflects the operation of just such a process.”

The fMRI studies referred to above were all about *Western* brains. These and other fMRI studies of Westerners reviewed by Ng, Han, Mao, and Lai (2008) found that only the self was represented in MPFC. In a first fMRI comparison of Westerners and Chinese in Beijing, Zhu and his associates replicated the distinctive self for Westerners and found that the self of Chinese was also represented in MPFC, suggesting that the neural representation of self personal traits was similar for Westerners and Chinese (Zhu, Zhang, Fan, & Han, 2007). Interestingly, they also found evidence that the neural representation of Mother differed significantly between the two cultures. For Chinese, judgment of Mother’s traits also induced increased activation in the ventral MPFC relative to judgment of a public person. For Westerners, however, Mother judgment did not differ from judgment of a public person in the ventral MPFC. These results indicated that both the self and Mother were represented in the same neural structure in Chinese but not in Westerners, which echoed well the East-West cultural difference in the interdependent and the independent self (Markus & Kitayama, 1991).

The results of Zhu et al.’s (2007) between-groups comparisons raise the possibility that culture modulates the neural structure of self-representation. This can be demonstrated in a more direct manner by examining the effect of culture priming on bicultural individuals. Ng et al. (2008) primed the brains of bicultural Hong Kong Chinese with Chinese and Western culture primes on two consecutive days, using the same pictorial icons and procedures just described. After each priming procedure that activated Western or Chinese cultural knowledge and focused the self-concept on

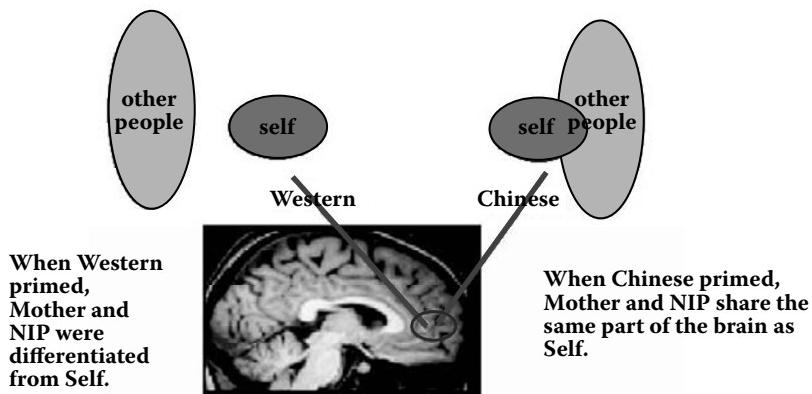


FIGURE 19.1 Illustration of the inclusion and exclusion of others in the bicultural brain under Chinese and Western culture priming.

either the Western independent self or the Chinese interdependent self, participants were scanned using fMRI while they performed trait judgment tasks regarding Self, Mother, or an NIP. Subjects also performed a Font judgment task so as to provide a low-level baseline condition. A second round of scan was obtained under the same four referencing conditions so as to obtain more reliable neural data in sufficient quantity for statistical analysis. Scanning was repeated the following day under a different prime. This completely within-subject design was necessary in order to have each participant serving as his or her control for reliable scanning results.

The increased neural activity associated with semantic encoding was identified by contrasting fMRI signals in the three person-referencing conditions with those in the Font condition. The results of 15 participants showed that semantic encoding engaged the left inferior frontal cortex and the superior frontal cortex, regardless of whether Western or Chinese culture was primed, suggesting that semantic processing was comparable for different judgment tasks. Hence, any differences between Self and Mother or between Self and NIP could not be attributed to differential semantic processing between tasks.

The analyses most relevant to the present chapter were based on subtracting the brain areas activated in Mother- or NIP-referencing from those activated in Self-referencing. If the Chinese culture priming activated the interdependent self, we would expect that the contrast between Self and Mother (or between Self and NIP) would result in minimal activation in the brain areas, indicating the inclusion of others in Self. By contrast, if the Western culture priming activated the independent self, the contrasts would still result in a substantial activation in the brain areas, suggesting the exclusion of others from Self. Using these criteria, the preliminary fMRI results so far indicated surprisingly that the neural activity in the ventral MPFC, which has been demonstrated to engage in neural representation of the self (Kelley et al., 2002; Zhu et al., 2007), did not differentiate between the Self and Mother or between the Self and NIP after the participants were Chinese primed. The same brain areas, however, showed increased activation to the Self relative to Mother and NIP when Western primed. The overall results can be depicted in Figure 19.1.

These observations indicate that the neural structure of the Self was biased to either include close (Mother) and even nonclose (NIP) others after Chinese culture priming, but to exclude NIP and even Mother after Western culture priming. It appears that the neural structure of the self in bicultural individuals can be shifted toward either the socially unique or socially connected self by culture priming in much the same way as the selves' cognitive structure can, and thus provide strong brain imaging evidence from the modulation of neural representation of the self in bicultural brains.

CONCLUSION

Psychology in its manifold traditions has shown a remarkably convergent interest in the self. Pulling together all the convergent interests would have been a task of mammoth proportion well beyond the scope of the present chapter. Instead, the more focused task has been to open up an SRE approach to the experimental study of the effects of culture primes on the cognitive and neural structure of the selves of bicultural individuals.

With respect to the *cognitive* structure of the self, there is strong evidence emerging that demonstrates the flexibility of the bicultural self to become more or less inclusive of significant others in accordance with the cultural context. Within this increasing body of literature, perhaps the most striking part of the present SRE approach is the power of culture (as represented by bicultural primes) over interpersonal intimacy and distance. This is shown by the twin facts that the bicultural self can differentiate itself even from the mother when Western primed, and can include even the nonidentified person when Chinese primed. The independence of culture-induced self-inclusiveness from interpersonal relationships demonstrated herein is reminiscent of the group-reference effect mediated by group-based self-categorization, in which a person's self becomes more socially inclusive when he or she self-categorizes as a member of a bigger group, for example, as an Asian and not as a Singaporean, or as an European and not as a German (Johnson et al., 2002).

Second, with respect to the *neural* structure of the self, brain imaging studies have shown an increasing interest in comparing Westerners' brains, which have been relatively well researched, with those of Asians (particularly East Asians). This West-East comparison has benefited considerably from the theoretical rationale behind the independent-interdependent self-construals and similar other cross-cultural dimensions. The SRE approach advocated herein shifts the comparison from between-groups to within-subject, which is made possible by testing bicultural brains (instead of monocultural brains). So far, the results parallel the memory results and serve to demonstrate, once again, the power of culture—this time in shaping the neural representation of self and others. When Western primed, the bicultural brain represents the self in a cortical area different from that of the nonidentified person and even from that of the mother, the same as the case of memory performance for the bicultural self. Conversely, the bicultural brain when Chinese primed represents the self, the mother, and even the nonidentified person in the same cortical area, again the same as the case of memory performance of the bicultural self under the same cultural context.

Our research, driven by sheer curiosity as much as by a common conviction in the vitality of social neuroscience (SHN is a social psychologist and SH is a brain scientist), is a leap of faith attempting to push the boundary of the SRE approach from the bicultural self to the bicultural brain. Our findings, admittedly preliminary, complement recent between-cultures brain imaging evidence that multiple levels of human cognition, such as perceptual processing (Gutchess, Welsh, Boduroğlu, & Park, 2006), attentional processing (Hedden, Ketay, Aron, Markus, & Gabrieli, 2008), and mental attribution (Kobayashi, Glover, & Temple, 2007), can be influenced by culture.

In closing, we return to the central theme from which we began this chapter, namely, our excitement over a brainy social psychology that is also culturally grounded. Our excitement is based in part on the rich conceptual insights that can be gleaned from social and cross-cultural psychology for research on the bicultural brain. As it turns out, our excitement is not unfounded. The conceptual distinction between the socially unique and the socially connected self that has been articulated by Markus and Kitayama (1991) and various other psychologists has proved to be fruitful for brain imaging research. Other equally productive insights from similar sources are in waiting. But that is not all we have cause for feeling excited about social neuroscience. Another important base of our excitement is the fundamental role of the “social” and the “cultural” in shaping the human brain. This is well put by Brüne, Ribbert, and Schieffenhövel (2003, p. xiii) in their preface to *The Social Brain*: “The label ‘the social brain’ characterizes an essential part of our evolutionary history, because it is very likely that our being *animaux sociale* has shaped our emotional and cognitive brain mechanisms in very decisive ways.” Social and cross-cultural psychology has so

far developed largely in isolation from brain science; but as it matures, and as new generations of social and cross-cultural psychology students arrive on the scene, social neuroscience will become mainstream one day.

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REFERENCES

- Agnew, C. R., Van Lange, P. A. M., Rushbult, C. E., & Langston, C. A. (1998). Cognitive interdependence: Commitment and the mental representation of close relationships. *Journal of Personality and Social Psychology, 74*, 939–954.
- Aron, A., Aron, E. N., & Norman, C. (2004). Self-expansion model of motivation and cognition in close relationships and beyond. In M. B. Brewer & M. Hewstone (Eds.), *Self and social identity* (pp. 99–123). Malden, MA: Blackwell.
- Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype priming on action. *Journal of Personality and Social Psychology, 71*, 230–244.
- Benet-Martínez, V., & Haritatos, J. (2005). Bicultural identity integration (BII): Components and psychosocial antecedents. *Journal of Personality, 73*, 1015–1050.
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology, 33*, 492–516.
- Bhatia, T. K., & Ritchie, W. C. (2004). *The handbook of bilingualism*. Oxford, UK: Blackwell.
- Bond, M. H. (Ed.) (1988). *The cross-cultural challenge to social psychology*. Newbury Park, CA: Sage.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17*, 475–482.
- Brewer, M. B., & Chen, Y. R. (2007). Where (who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Review, 114*, 133–151.
- Brewer, M. B., & Gardner, W. (1996). Who is this “we”? Level of collective identity and self representations. *Journal of Personality and Social Psychology, 71*, 83–93.
- Briley, D. A., Morris, M. W., & Simonson, I. (2005). Cultural chameleons: Biculturals, conformity motives, and decision making. *Journal of Consumer Psychology, 15*, 351–362.
- Brüne, M., Ribbert, H., & Schiefenhövel, W. (2003). *The social brain: Evolution and pathology*. Chichester, UK: Wiley.
- Cacioppo, J. T., Visser, P. S., Pickett, C. I. (Eds.) (2005). *Social neuroscience: People thinking about thinking people*. Cambridge, MA: MIT Press.
- Campbell, D. T. (1975). On the conflicts between biological and social evolution and between psychology and moral tradition. *American Psychologist, 30*, 1103–26.
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review, 107*, 262–288.
- Deregowski, J. B. (1972). Pictorial perception and culture. *Scientific American, 227*, 82–88.
- Gardiner, J. M., Ramponi, C., & Richardson-Klavehn, A. (1998). Experience of remembering, knowing, and guessing. *Consciousness and Cognition, 7*, 1–26.
- Gibbons, J. (1987). *Code-mixing and code choice: A Hong Kong case study*. Clevedon, UK: Multilingual Matters.
- Gillihan, S. J., & Farah, M. J. (2005). The cognitive neuroscience of the self: Insights from functional neuroimaging of the normal brain. In T. E. Feinberg & J. P. Keenan (Eds.), *The lost self: Pathologies of the brain and identity* (pp. 20–32). New York: Oxford University Press.
- Gutchess, A. H., Welsh, R. C., Boduroğlu, A., & Park, D. C. (2006). Cultural differences in neural function associated with object processing. *Cognitive, Affective, and Behavioral Neuroscience, 6*, 102–109.
- Harmon-Jones, E., & Winkielman, P. (Eds.) (2007). *Social neuroscience: Integrating biological and psychological explanations of social behavior*. New York: Guilford Press.

- Heatherton, T. F., Macrae, C. N., & Kelley, W. M. (2004). What the social brain sciences can tell us about the self. *Current Directions in Psychological Science, 13*, 190-193.
- Hebb, D. O. (1949). *The organization of behavior*. New York: Wiley.
- Hedden, T., Ketay, S., Aron, A., Markus, H. R., & Gabrieli, J. D. E. (2008). Cultural influences on neural substrates of attentional control. *Psychological Science, 19*, 12-17.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. London: Sage.
- Hong, Y.-I., Morris, M. W., Chiu, C.-Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist, 55*, 709-720.
- Jahoda, G.. (1982). *Psychology and anthropology: A psychological perspective*. London: Academic Press.
- James, W. (1890/1950). *Principles of psychology*. New York: Dover.
- Johnson, C., Gadon, O., Carlson, D., Southwick, S., Faith, M. & Chalpin, J. (2002). Self-reference and group membership: Evidence for a group-reference effect. *European Journal of Social Psychology, 32*, 261-274.
- Kağıtçıbaşı, Ç. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology, 36*, 403-422.
- Kelley, W. T., Macrae, C. N., Wyland, C., Caglar, S., Inati, S., & Heatherton, T. F. (2002). Finding the self? An event-related fMRI study. *Journal of cognitive Neuroscience, 14*, 785-794.
- Kobayashi, C., Glover, G. H., & Temple, E. (2007). Cultural and linguistic effects on neural bases of "Theory of Mind" in American and Japanese children. *Brain Research, 1164*, 95-107.
- LaFromboise, T., Coleman, H. L. K., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin, 114*, 395-412.
- Luria, A. R. (1974). Language and brain: Towards the basic problems in neurolinguistics. *Brain and Language, 1*, 1-14.
- Macrae, C. N., Moran, J. M., Heatherton, T. F., Banfield, J. F., and Kelley, W. M. (2004). Medial prefrontal activity predicts memory for self-knowledge. *Cerebral Cortex, 14*, 647-654.
- Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954-969.
- Mashek, D., Aron, A., & Boncimino, M. (2003). Confusions of self with close others. *Personality and Social Psychology Bulletin, 29*, 382-392.
- Mead, G. H. (1934). *On social psychology*. (A. Strauss, Ed.) Chicago: University of Chicago Press.
- Moscovici, S. (1976). *Society against nature: The emergence of human societies*. Brighton, UK: Harvester Press.
- Ng, S. H., Han, S., Mao, L., & Lai, J. C. L. (2008). *Flexible neural representation of self in bicultural brains*. Manuscript under review.
- Ng, S. H., & Lai, J. C. L. (in press). Effects of cultural priming on the social connectedness of the bicultural self: A self-reference effect approach. *Journal of Cross-Cultural Psychology*.
- Ng, S. H., Yam, N., & Lai, J. (2007). The bicultural self of Chinese in Hong Kong. In J. Liu, C. Ward, A. Bernardo, M. Karasawa, & R. Fischer (Eds.), *Casting the individual in societal and cultural contexts: Social and societal psychology for Asia and the Pacific* (Progress in Asian social psychology series, Vol. 6) (pp. 105-122). Seoul, Korea: Kyoyook-Kwahak-Sa.
- Oyserman, D., Coon, H., & Klemelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analysis. *Psychological Bulletin, 128*, 3-72.
- Oyserman, D., & Lee, S. W. -S. (2007). Priming "culture": Culture as situated cognition. In S. Kitayama and D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 255-281). New York: Guilford Press.
- Oyserman, D., & Lee, S. W. -S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin, 134*, 311-342.
- Popper, K. R., & Eccles, J. C. (1977). *The self and its brain: An argument for interactionism*. Berlin: Springer Verlag.
- Qi, J., & Zhu, Y. (2002). The self-reference effect of Chinese college students (In Chinese). *Psychological Science (China), 25*, 275-278.
- Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology, 35*, 677-688.
- Srull, T. K., & Wyer, R. S., Jr. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology, 37*, 1660-1672.

- Sui, J., Zhu, Y., & Chiu, C.-Y. (2007). Bicultural mind, self-construal, and self- and mother-reference effects: Consequences of cultural priming on recognition memory. *Journal of Experimental Social Psychology*, 43, 818–824.
- Symons, C. S., & Johnson, B. T. (1997). The self-reference effect in memory: A meta-analysis. *Psychological Bulletin*, 121, 371–394.
- Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private and collective self. *Journal of Personality and Social Psychology*, 60, 649–655.
- Triandis, H. C. (1989). The “I” and social behavior in differing cultural contexts. *Psychological Review*, 96, 269–289.
- Tulving, E. (1999). On the uniqueness of episodic memory. In L.-G. Nilsson & H. J. Markowitsch (Eds.), *Cognitive neuroscience of memory* (pp. 11–42). Toronto, ON: Hogrefe & Huber.
- Turner, J. C. (1978). Social categorization and social discrimination in the minimal group paradigm. In H. Tajfel (Ed.), *Differentiation between social groups* (pp. 101–140). London: Academic Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Basil Blackwell.
- Vygotsky, L.S. (1978). Mind in society: *The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wheeler, S. C., & Petty, R. E. (2001). The effects of stereotype activation on behavior: A review of possible mechanisms. *Psychological Bulletin*, 127, 797–826.
- Wexler, B. E. (2006). *Brain and culture: Neurobiology, ideology and social change*. Cambridge, MA: MIT Press.
- Zhu, Y., & Zhang, L. (2002). An experimental study on the self-reference effect. *Science in China (Series C)*, 45, 120–128.
- Zhu, Y., Zhang, L., Fan, J. & Han, S. (2007). Neural basis of cultural influence on self representation. *Neuroimage*, 34, 1310–1317.

20 Biculturalism in Management

Leveraging the Benefits of Intrapersonal Diversity

Ray Friedman and Wu Liu

A common refrain in business circles is that the world of business has become more global and international. Yet it is not just that *business* has become more global—*people* have become more global. Exposure to other cultures occurs through extended travel, attending universities abroad, and having work assignments in other countries. Even those who have not traveled abroad are exposed to other cultures through TV, movies, and classwork. A few places in the world are intensely multicultural, due to either historic intersections of cultures (e.g., Hong Kong or Singapore) or high levels of migration (e.g., New York). In places like the U.S., more people each decade can no longer fit themselves into distinct ethnic categories, thinking of themselves as “mixed” white, black, and Asian (Goldstein & Morning, 2000). Some scholars discuss the development of a new “global” culture of people who are distinctly international (e.g. Anthias, 2001). In effect, cultural “diversity” has moved from being just a process of including different people on work teams or school classrooms to being a process that occurs *within* an individual (Bunderson & Sutcliffe, 2002; LaFromboise, Coleman, & Gerton, 1993).

Recognition of this phenomenon has been advanced in recent years by the work of Hong, Chiu, and others. Hong, Morris, Chiu, and Benet-Martínez (2000), for example, have shown that Chinese in Hong Kong, who are heavily exposed to British as well as Chinese ways of thinking, are essentially bicultural, in the sense that they know and can activate either perspective, depending on the demands of the situation. They have also shown this same dynamic among Asians who have emigrated to the U.S.; these people can act consistent with American norms or Chinese norms, according to situational demands (Hong, Benet-Martínez, Chiu, & Morris, 2003). People can maintain within themselves multiple cultural systems. They add, however, that exposure to other cultures does not automatically produce biculturalism (Benet-Martínez, Leu, Lee, & Morris, 2002). For example, some people who learn about other cultures respond by rejecting one of them. As we will discuss in more detail below, some characteristics of individuals may make it hard for those who simply know a great deal about two cultures to comfortably operate in them both. Therefore, we define biculturalism as more than simply being extensively exposed to two cultures; we define biculturalism as the ability to *comfortably understand and use* the norms, ways of thinking, and attitudes common within two cultural systems.

In the past, many scholars looked at exposures to different cultures as potentially unsettling to the individual (Berger, Berger & Kellner, 1973) and disruptive of social interactions (Pye, 1963; Geertz, 1963). In contrast, we argue that biculturalism can be an asset that is harnessed in international business settings as well as noninternational business settings. Previous concerns about foreign exposure have come mainly from some streams of the “acculturation” literature (Berreman, 1964; Ausubel, 1960; Berry, 1997), where it is assumed that a person moves from one culture into another and has to—in effect—choose between them. Foreign exposure that takes hold of a person will make him or her differ in ways that are not helpful. The most dramatic example is the writings of Joseph Conrad in *The Heart of Darkness*, or its movie dramatization, *Apocalypse Now*, where

the westerner comes to the jungle and “goes native.” The biculturalism argument, however, suggests that this does not have to happen.

In this paper, we ask: Can biculturalism help in management? Why should scholars in organizational behavior and international management pay attention to biculturalism? We will argue that biculturalism offers two elements that can benefit organizations: adaptability and boundary spanning. Adaptability is the ability to shift one’s actions to the demands of a particular cultural audience, and boundary spanning is the ability to serve as a conduit between cultural groups. The first quality affects individual interactions with others. The second quality affects the network structures of organizations. Further, we discuss how bicultural people’s adaptability and boundary spanning benefit managerial activities, including teams, decision making, leadership, and dispute resolution. We are also aware that the benefits of biculturalism are not unconditional. We also will discuss the boundary conditions and potential negative sides of biculturalism.

THE CONCEPT OF BICULTURALISM

The origins of the concept of biculturalism may lie in the classic articles by Alfred Schuetz (1944, 1945), a sociologist who created the sociological domain called phenomenology. In 1944, he wrote a piece call “The Stranger,” which explored what it is like to leave one’s home culture and enter a foreign one. The shocking experience he describes is one in which previously taken-for-granted assumptions are no longer valid. In a follow-up article, called “The Homecomer,” Scheutz (1945) writes that coming back to one’s home culture does not solve the problem. That is, having been exposed to a foreign culture, a person can no longer accept the assumptions of one’s home culture as completely true. A kind of cultural relativism sets in, and the person knows that one’s home values and expectations are not inherently given, but simply reflect the way that things are done in a particular part of the world. In Scheutz’s treatment, this state of mind is quite disturbing. One can feel disengaged and unanchored. There is a yearning for valid assumptions.

An elaboration of this idea is the later work on “modernization.” As economic development spread throughout much of the world during the post–World War II period, the tensions created by having people with one foot in the world of traditional society and one foot in the world of modern economic systems were expected to cause great stress and difficulty (Black, 1966; Eisenstadt, 1966; Levy, 1972). Although there was some evidence to this effect (e.g., Chance, 1965), other studies found a surprising nonchalance about this supposed problem. In his study of Indian villagers, for example, Singer (1972) showed that people could quite easily compartmentalize their lives so that they lived in the modern factory world by day and returned to their traditional lives at home. There were differences, but nothing that implied that one way of thinking had to govern one’s entire life. It is quite acceptable to be modern at work but traditional at home, and people seemed quite able to shift between these each day. Nash (1967) similarly found that modernization did not necessarily threaten traditional Mayan culture.

The more recent work in psychology has shown in more detail the ways in which people may switch between thought systems. As Hong et al. (2000) have shown, the switch can occur as easily and quickly as a response to images and pictures shown in a research lab. For example, Hong Kong Chinese who are shown pictures of the Great Wall make attributions that are similar to those made by Chinese, whereas those who are shown pictures of the Statue of Liberty make attributions that are similar to Americans’. In an amazing study, Ng and Han (this volume) showed that after viewing pictures of Chinese or Western cultural icons, Chinese-Western bicultural participants engaged different parts of the brain in processing information. Friedman, Liu, Chi, and Hong (2006) were able to show that the ability to switch between cultures in response to different stimuli was evident among Taiwanese businesspeople who had extensive work or educational experience abroad.

We define biculturalism as the ability to *comfortably understand and use* the norms, ways of thinking, and attitudes common within two cultural systems. At the core of biculturalism is the *ability* of people to shift between two different cultural knowledge systems (Hong et al., 2000;

Hong, Wan, No, & Chiu, 2007). Thus, biculturals have cognitive access to two different cultural knowledge traditions (or, to extend this idea, multiculturals have access to more than two cultural knowledge traditions). Moreover, they are able to comfortably use those cultural traditions—they accept, identify with, and believe in those traditions. Those who simply know about another culture and can play the script like an actor are not biculturals in the sense that we intend.

We should note that biculturalism is related to but different from cultural intelligence (Earley, 2002; Earley & Ang, 2003). Cultural intelligence is defined as “a person’s capability to adapt effectively to new cultural contexts” (Earley & Ang, 2003). Biculturalism refers to the presence within an individual of two cultural systems and the ability to shift between those different cultural systems (Berry, 1980; Benet-Martínez et al., 2002; Hong et al., 2000; LaFromboise et al., 1993). Although biculturalism may contribute to cultural intelligence, cultural intelligence does not necessarily require biculturalism (adaptive ability may come from personality or family experiences). Also, whereas cultural intelligence focuses on one’s ability to work in a foreign culture, biculturalism (as we will discuss below) can have a broader impact, enhancing cognitive, emotional, and behavioral flexibility within one’s own culture as well, not just in a foreign culture.

WHEN BICULTURAL EXPOSURE LEADS TO BICULTURALISM

Of course, it is an open question whether a particular person can successfully absorb and use multiple cultural systems, even after extensive exposure to those cultures. Americans may go to work in Beijing but live in a totally American enclave, interacting mostly with other Americans. Similarly, Chinese may come to the U.S. for school but interact only with other Chinese students. In such cases, it is unclear exactly how much of the local culture is absorbed. Moreover, there are cases where people learn two cultures only to react negatively to one culture (their home culture or learned culture), so that that person cannot really use both cultural systems. They may have *knowledge* about two cultures, but do not *identify* with those cultures (Hong et al., 2007). Recent research has identified several factors that moderate the translation of bicultural experience into full, internalized biculturalism.

The first moderator is need for cognitive closure (NFCC), an individual desire to find an answer on a given topic in order to avoid the uncomfortable experience of confusion or ambiguity (Kruglanski, 1990, p. 337). People with high NFCC are motivated to find firm answers and dislike ambiguity. Since culture provides people with conventions, norms, and thus firm answers, compared with low-NFCC individuals, high-NFCC individuals are more strongly motivated to follow the cultural conventions that they were brought up with (Chiu, Morris, Hong, & Menon, 2000). High-NFCC individuals are less likely to receive new ideas from foreign cultures (Leung & Chiu, in press), and are less likely to adapt to foreign cultures (Kosic, Kruglanski, Pierro, & Mannetti, 2004) than low-NFCC individuals.

A second moderator is the acculturation strategy that one may take. According to Berry and colleagues (Berry, 1980; Berry, Kim, Power, Young, & Bujaki, 1989), there are four acculturation strategies: assimilation (adopt the new culture while resisting one’s cultural heritage), separation (maintain one’s cultural heritage while resisting the new culture), marginalization (resist both one’s cultural heritage and the new culture), and integration (maintain cultural heritage and adopt the new culture). Only those taking the integration strategy are expected to be able to comfortably move between two different cultures (Tadmor & Tetlock, 2006; Tadmor, Tetlock, & Peng, 2006).

A third moderator is bicultural identity integration (BII; Benet-Martínez et al., 2002), which refers to the extent to which a person perceives two different cultural identities as complementary and compatible. Individuals with high BII identify with and integrate two cultures internally so that they can respond to both sets of cultural cues without feeling that there is tension or conflict. In contrast, low BII individuals see the two cultures as conflicting, and they respond to the cultural cues from one culture by engaging in behavior consistent with the other culture (Benet-Martínez et al., 2002; Friedman et al., 2006). For example, one study by Friedman et al. (2006) showed that

among individuals who went abroad, only those with high BII were able to switch cultural systems in response to cultural cues. Therefore, although all people with deep bicultural experiences have access to two different cultural knowledge systems, BII influences whether or not those people can smoothly switch between different cultural systems.

The fourth moderator is the lay theory of race. Some bicultural people endorse an essentialist lay theory of race, which assumes that race is a stable and enduring entity (No et al., *in press*). Holding an essentialist lay theory of race leads minority bicultural people to regard their minority culture and the mainstream culture as separate entities, so that they respond to mainstream cultural primes with minority cultural patterns, not mainstream cultural patterns (No et al., *in press*).

Given these moderators, we need to be careful to point out that that our discussion is not simply about people who have been in two cultures. That kind of surface-level biculturalism is not enough to produce the benefits we discuss below. Indeed, surface-level biculturalism may produce negative effects. What we are referring to is deep-level biculturalism, where several cultural systems are not just known but valued, respected, and able to be comfortably used by employees. We ask: For those who are truly bicultural, what effects is that likely to have?

CORE EFFECTS OF BICULTURALISM

We argue that two core effects of biculturalism are relevant for business. The first is adaptability, or the ability to switch one's way of thinking as conditions warrant. The second is the ability to serve as a boundary spanner between cultures.

ADAPTABILITY

Adaptability is the ability to adjust to different circumstances, intellectual challenges, and social demands. The Encarta Dictionary (2007) defines adaptability as “the process or state of changing to fit a new environment or different conditions.” Thus, adaptation involves both (a) the ability to change or be different and (b) a change to a state that better fits a particular environment. One element is a process of “unlocking” established cultural expectations, and the other is being aware of other cultures and thereby being able to change oneself to fit them. Biculturalism, we argue, allows people to adapt much more easily than nonbiculturals.

Using Kurt Lewin's model of change (1943), the first step in any change effort is the process of unfreezing existing conditions. Scheutz (1944) describes in rich detail the experience of being shocked by cross-cultural experiences that unfreeze cultural understandings. The opposite condition may exist, however, when there is a milder challenge to a cultural system. In studies by Harold Garfinkel (1967) researchers were asked to knowingly violate cultural norms (e.g., how far to stay from others in an elevator, or how to converse with one's spouse at home). These sorts of “strange” actions typically generate strong negative responses in others. Those who are targets of ethnomethodology experiments interpret the experimenter's actions within their existing cultural framework and interpret them as intentional attempts to violate social norms. Their angry response is an attempt to punish the experimenter for his or her violations, and thus reaffirm the influence of existing cultural norms. These people are not unfrozen from their cultural system but rather are forced into conforming with their cultural system. Thus, a brief visit to another culture should not be enough to unfreeze; sustained integration with the other cultural system is needed, enough to get the person to take seriously the legitimacy of the alternative cultural system.

A parallel argument is made by Miller and Friesen (1984), who talk about “quantum” organizational change. They note that organizational systems are integrated wholes. Consequently, outside pressures are unlikely to lead to marginal or incremental change, because such changes would create elements of the organization that were inconsistent with other elements. Instead, they argue, demands for change build up until there is enough pressure to change an entire system. Thus, organizations change in a “quantum” way rather than through a series of incremental shifts.

Although unfreezing is one step in adaptation, a second is the ability to be open to new cultural systems. Biculturals, by definition, carry within them alternative cultural systems. They know and can abide by other norms. Hong Kong Chinese, for example, can recognize and understand both Chinese and British ways of thinking and acting and can connect to situations that occur within both cultural systems. But the ability of biculturals to move toward other cultures may not be limited to these individuals' "other" culture. Consider the effects of second-language acquisition. Cenoz and Genesee (1998) showed that people who have learned a second language have a much easier time learning a third language—they have become more adept at seeing new patterns in language and exploring meaning—and this effect is not just limited to learning similarly structured languages. Similarly, we argue, someone who is bicultural is better able to see and understand and shift toward unfamiliar cultures and environments. They know, in Scheutz's terms, that cultural systems are not absolutes, and they should therefore be more open to think about different cultures.

The three areas where adaptability can be applied are: cognition, emotion, and behavior.

Cognitive adaptability. People who are truly bicultural should be more flexible in their thinking than those who are monocultural. The best direct evidence for this claim comes from a study by Leung and colleagues (2008). They asked whether those people who had spent time abroad (and thus were more likely to be bicultural, we would add) were more creative when given standard problem-solving and creativity tasks. They found that spending time abroad did indeed benefit creativity, but that the benefits did not occur until the length of time abroad was at least two years. Thus, the cognitive benefits of time abroad did not kick in until one was fully engaged in the ideas and ways of thinking of that other culture. This suggests, indeed, that it takes time to "unfreeze" from past assumptions, but once it is accomplished, one is then able to think in a more unfettered way, enhancing creativity.

What factors lead to such cognitive flexibility? The need to shift repeatedly between different cultural ways of thinking may drive this effect. We can see this type of switching in the way bicultural people respond to cultural cues (Benet-Martínez et al., 2002; Hong et al., 2000, 2003; Ross, Xun, & Wilson, 2002), a process that Hong et al. (2000) call *cultural frame-switching*. Applying the construct of knowledge activation (Higgins, 1996), these scholars argue that biculturals have cognitive access to different cultural systems and that cultural cues can trigger or activate the use of these systems.

Not only do biculturals maintain two different cultural systems in their heads, they also are able to integrate those systems. Some individuals who are exposed to other cultures develop a separation strategy (maintaining their cultural heritage while resisting the new culture) or an assimilation strategy (embracing the new culture while abandoning their cultural heritages). Biculturals, however, are able to integrate multiple cultures (Berry, 1980; Berry et al., 1989). That is, they are able to adopt new cultural knowledge while simultaneously maintaining their cultural heritage and are able to shift back and forth between different cultural contexts. The accumulated experiences at processing fast-alternating cultural cues help bicultural people to develop integrative cultural representations (or *integrative complexity*; Tadmor & Tetlock, 2006). That is, bicultural people are aware of and accept different cultural perspectives on thinking, and they "develop integrative schemas that specify when to activate different worldviews and/or how to blend them together into a coherent holistic mental representation" (Tadmor & Tetlock, 2006, p. 174). This kind of cognitive shifting should result in more cognitive complexity and flexibility (Benet-Martínez, Lee, & Leu, 2006; Tadmor & Tetlock, 2006) so that they should be able to adjust their way of thinking to new situations.

Emotional adaptability. Emotions are feelings associated with specific events, and they are usually categorized into discrete dimensions, such as anger, joy, shame, guilt, and others (Brief & Weiss, 2002). Recent research suggests that emotions are "cultural and interpersonal products of naming, justifying, and persuading by people in relationship to each other" (Lutz, 1988, p. 5; see

also Ekman, 1972; Markus & Kitayama, 1991; Scherer, 1997). Particularly, culture has been found to play a crucial role in affecting (a) the conditions eliciting emotions; (b) the norms of experiencing emotions; (c) how emotions are regulated (expression and suppression of emotions); and (d) the social consequences of emotional expressions (see reviews by Markus & Kitayama, 1991; Mesquita & Frijda, 1992). In other words, different cultures may have different norms in eliciting, experiencing, regulating, and evaluating emotions.

Thus, exposure to multiple cultures should provide bicultural people with greater emotional skills, since they have a comfort and familiarity with several ways to elicit, experience, and regulate emotions. They are more emotionally flexible. Like language acquisition, we suspect that emotion acquisition becomes easier after learning the first set of “different” emotion rules. The mere realization that people may react emotionally quite differently to a situation allows one to anticipate and manage new and unfamiliar emotions. This realization increases awareness of the need to attend to the reactions of people, as emotions cannot be taken for granted. Moreover, people who are exposed to different emotional systems should be able to better manage themselves emotionally—they have the experience of having to control one set of emotional responses, knowing that a different set is appropriate to a situation. They should then be more skilled at emotion work of the type described by Hochschild (1979) or Sutton and Rafaeli (1988).

Biculturals’ emotional flexibility is built from their exposure to several aspects of emotional differences across cultures. First, there are differences in emotional expression. Emotional expression, which is an important facet of self-presentation (DePaulo, 1992), is influenced by culture (Markus & Kitayama, 1991; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). People are motivated to present themselves in a way that is accepted by others (Goffman, 1959). According to Markus and Kitayama (1991), people from cultures that emphasize independent self-construals are likely to express *ego-focused* emotions, which have an individual’s internal attributes as the primary referent (e.g., am I happy, sad, or joyful). However, people from cultures that emphasize interdependent self-construals are likely to express *other-focused* emotions, which have another person (or group) as the primary referent (e.g., do I show respect to her/him). Kitayama et al. (1997) found that Americans engaged relatively more in self-enhancement, whereas Japanese engaged relatively more in self-criticism. To this extent, American-Japanese biculturals, who are familiar with the emotional expressions in both American and Japanese cultures, should be able to express themselves in two different ways and know how to interpret two different sets of emotional expression.

Second, there are cross-cultural differences in the meaning of emotion-laden symbols. For example, opium may be simply regarded as an addictive drug in many cultures. In the eyes of most Chinese, however, the word *opium* is associated with the memory that the Chinese were humiliated in the 19th century by Western countries who invaded China to punish them for resisting the import of this drug. Thus, mentioning opium to Chinese people can arouse their resentment or anger (Morris & Gelfand, 2004). Chinese-American bicultural people should be aware of these differences and be able to strategically avoid (or utilize sometimes) the events or symbols with special cultural meanings in different cultures.

The greater emotion-management ability of those who know a given culture has been shown in several studies. A meta-analysis by Elfenbein and Ambady (2002) shows that people’s emotional expressions can be recognized more quickly and accurately by members of their own culture than by members of another. Expanding this logic to cross-cultural learning, Elfenbein and Ambady (2003) found that Americans’ facial expressions were identified more accurately by Chinese students who had lived in the U.S. for an average of 2.4 years than by Chinese who were living in China. To test further the effect of learning on emotion recognition, Elfenbein (2006) gave training about how emotions differ across cultures to a group of participants from two cultures (Chinese versus American) and no training to another group. She found that giving training significantly improved the accuracy of emotion recognition of the other culture for both Chinese and American subjects. Thus, cultural knowledge and learning are critical for emotional understanding. Moreover, having engaged with different emotional strategies and norms, biculturals should be more flexible in the

face of emotional surprises. In sum, biculturals should have developed, by virtue of their ability to move between cultures, a level of emotional flexibility that should extend not only to cross-cultural situations but to many social interactions.

Behavioral adaptability. Cultural differences exist not only in cognitions and emotions, but also in behavioral patterns, scripts (Abelson, 1976; Mayer, 1992), and rituals. The literature on cultural styles is full of descriptions of rituals that vary across culture. For example, looking at Chinese rituals there are books designed for general readers (e.g., Hu and Grove, 1999) as well as businesspeople (Seligman, 1999), and there are academic texts that examine social behaviors from a more ethnographic perspective (Redding, 1993). In social psychology, much attention has been put on cross-cultural differences in negotiation scripts. Adair, Okumura, and Brett (2001) show that U.S. managers exchange information directly with each other during negotiations, while Japanese negotiators exchange information indirectly when negotiating with each other, and also use more influence tactics (such as appealing to sympathy) during negotiations. Tinsley (2001) found that during negotiations Japanese tend to appeal to social power, Germans tend to appeal to rules and regulations, and American appeal to interests. Earlier work by Shenkar and Ronen (1987) argued that there is greater emotional restraint and politeness in the behavioral patterns of Chinese negotiators compared to American negotiators. And there are readily available the lists of actions typically taken by negotiators from different cultures (Deresky, 2002).

Bicultural individuals have multiple scripts available to them. In this sense, they are likely to be behaviorally ambidextrous. That is, they can engage people and groups in ways that are culturally expected and can adapt more easily to new situations than monocultural individuals can. They can better understand the likely intentions of a person's actions and respond more appropriately to the person's behaviors. Consequently, they have more ability to control their actions and can choose behavioral strategies that they think are appropriate. In short, whereas monocultural individuals have only one set of behavioral scripts available, biculturals have two, and so they can adapt more readily to the situations they face.

Reminder of boundary conditions. This is a good point to restate the caveats discussed above. For those people who are high in NFCC, use a non-integration acculturation strategy, are low in BII, or have an essentialist view of race, the kind of flexibility that we discuss here is not likely to occur. Indeed, for those individuals, the opposite may be true (Benet-Martínez et al., 2002; No et al., 2008).

BOUNDARY SPANNING

So far we have talked about cognitions, emotions, and actions taken by bicultural individuals. Now, we switch to a more systems way of thinking, trying to understand what impact the presence of a bicultural might have within a social network. For this, we move to network analysis, which pictures individuals and their connections with each other as a network of associative links. Within a given set of people, each individual may or may not have social ties to each other person. Ties can be made up of simply knowing a given other person, trusting him or her, communicating with him or her, or seeking advice. Ties can be defined in any way that is theoretically relevant. People are then thought of as "nodes," and network analysis can describe characteristics of these nodes, such as how central they are within a total network and whether they are structurally very important to the network (such as being a unique source of connection between people who otherwise are not connected). For example, looking at Figure 20.1, we can see that person X is more central than person Y. We can also see that person Z has an especially important role to play within Cluster A, given that she is the only conduit through which Cluster A is connected to Cluster B. This person, in Burt's (1992) formulation, is filling a structural hole and thus has a great deal of leverage. The nature of that role of being between two groups is also analyzed by Friedman and Podolny (1992). They found that some people in labor management negotiations tend to be representatives of their groups, communicating

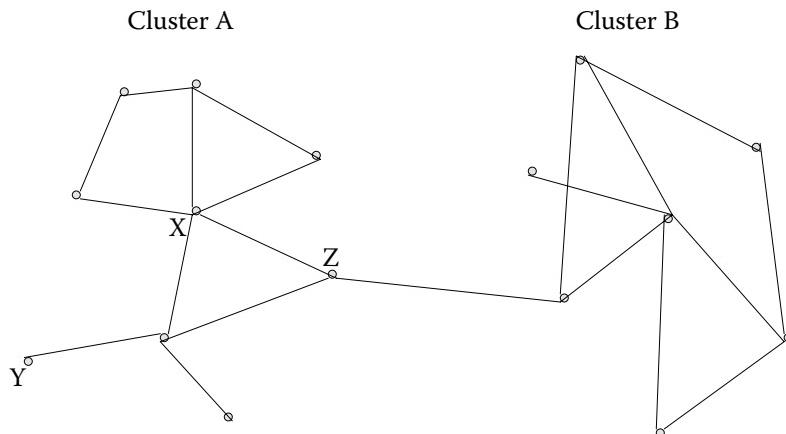


FIGURE 20.1 Sample friendship network.

out to the other group, while other people on negotiating teams are gatekeepers, communicating from the other group in toward one's own group.

We can see from these examples that the overall structure and density of a network is affected by (a) how easily each person or node connects to others, and (b) how easily such people are able to connect to people in clusters that are quite different, making connections between these different clusters easier or more difficult. We know from other research that people tend to interact most comfortably and extensively with people who are like themselves (Lincoln & Miller, 1979; Marsden, 1988; Tsui & O'Reilly, 1989). In cross-cultural situations, this means that it is more likely for interactions to occur within-culture, not across-culture. Thus, if networks are made up of people who are culturally different, they are likely to have structural holes. Biculturals can dramatically affect the structure of such systems because they are able to connect to people in both cultural clusters. The overall structure of networks without biculturals is likely to be much more splintered. In this way, biculturals help span boundaries. Once that is done, then the overall network is likely to be more efficient—information is shared more broadly. Thus, the presence of biculturals in a social network is likely to enhance the efficiency of the entire network.

NEGATIVE EFFECTS OF SUSPICION

So far we have argued that the intra-psychic aspects of being deeply bicultural can change a network structure in ways that are beneficial. However, it is also possible that some people react negatively to surface-level biculturalism. That is, those who have been abroad may be looked upon with suspicion. If there is perceived conflict between the two cultural groups, then association with the out-group may be a cause of concern. Certainly, during World War II, Americans with Japanese or German ancestry were treated with great suspicion. In negotiations, lead bargainers who spend a great deal of private time with opposing lead bargainers have to work hard to convince their own constituents of their loyalty (Friedman, 1994). Thus, while the internal characteristics of true biculturals can help expand social networks, suspicions about people with different experiences may limit these benefits.

MANAGERIAL BENEFITS

In this section, we explore some areas of management that are likely to benefit from the attributes that biculturals bring to the workplace. These include managing teams, decision making, leadership, and dispute resolution.

MANAGING TEAMS

For managing teams to be effective, they need to be able to elicit and use knowledge and ideas from team members (Thompson, 2004). An ideal team will include people from different backgrounds, so that it is more likely that the team will carry within it a wider range of ideas. Biculturalism should enhance that range of ideas, since a bicultural individual inherently brings a level of intra-personal diversity of views to the team (Bunderson & Sutcliffe, 2002). Beyond just representing more ideas, biculturals should help teams with internal processes, so that existing ideas get expressed and discussed in a way that is more productive.

Biculturals may help team processes by decreasing vulnerability to the “common information” effect (that is, the tendency for teams to only talk about common information; Gigone & Hastie, 1997), and by decreasing the risk that productive task conflict turns into unproductive relationship conflict (Jehn, 1995). These benefits may be driven by the enhanced interpersonal trust that exists when an individual is high in cognitive, emotional, and behavioral flexibility, as discussed above. A bicultural individual is more likely to understand and emotionally relate to team members from different cultures (or more broadly, to understand and relate to people from varying backgrounds) and to coordinate their actions to match those of others on the team. Teams with bicultural individuals are more likely to have densely connected intra-team connections, because these individuals can help span boundaries that may exist between different cultural clusters within the team or between people from differing social backgrounds of any kind. This, too, should help build trust among the team members. Following Heider’s balance theory (1958), if the bicultural individual creates a positive relationship with parties in separate subgroups of a team, there should then exist a positive attitude between those two parties that are brought together by the bicultural team members.

High levels of trust and within-team network density should enhance team psychological safety (Edmonson, 1999), making it more likely that people will debate and share information. Higher levels of trust also make teams more likely to engage in debates about how to complete their tasks, without those differences turning into personal, emotional conflicts (Simons & Peterson, 2000) that undermine productivity. In addition, teams that trust each other more are more likely to use nonredundant information (Gruenfeld, Mannix, Williams, & Neal, 1996). That is, they are less likely to dismiss information that is not already shared by team members. We also suggest that biculturals’ adaptability and flexibility makes them less likely to enter a situation with strong predetermined ideas (a factor that enhances group vulnerability to premature decision making) (Schulz-Hardt, Frey, Lüthgens, & Moscovici, 2000). More broadly, cross-group friendships can enhance a team’s sense of having collective interests (rather than just self-interests) (Thompson, 2004), increasing team effectiveness.

DECISION MAKING

One primary responsibility of managers is to make decisions. Due to bounded rationality and the complexity of environments, managers often do not make decisions based entirely on rationality, but rather rely on their perceptions, beliefs, values, or even intuitions. Several well-known cognitive biases in decision making include the confirmation bias (the tendency to search for or interpret information in a way that confirms one’s preconceptions; Nisbett & Ross, 1980), anchoring (the tendency to use information already has a reference for further decision making; Tversky & Kahneman, 1974), and selective perception (the tendency for expectations to affect perception; Hastorf & Cantril, 1954)—just to name a few.

Many of these biases originate from the tendency for people to make decisions by heavily relying on preconceptions, expectations, or knowledge, rather than new or unfamiliar ideas. Biculturals should be less susceptible to these biases because their cognitive processes are characterized by integrative complexity; they are more likely to approach the same issues from different angles or perspectives (e.g., Benet-Martínez et al., 2006). They are more likely to place seemingly irrelevant

concepts together, extend existing conceptual boundaries, and generate creative solutions. In the creativity literature, conceptual expansion (defined as the process of broadening existing conceptual structures or loosening the confines of acquired concepts) is seen as an effective strategy to support creative activities (Ward, 1994). Indeed, the work of Leung et al. (2006) suggests that people with multicultural experience are more creative in problem solving and in negotiations than those without multicultural experience.

Decision making should also be enhanced by the emotional flexibility that comes from biculturalism. Recent work on need for closure (drawing on prior work by Kruglanski, 1990) argues that the desire to quickly (perhaps too quickly) come to a decision can come not just from individual trait need for closure, but also from environmental conditions that place stress on a decision maker, such as time pressure (Chiu et al., 2000) and ambiguity (Friedman, Liu, Chen, & Chi, 2007). If a decision maker is under emotional duress, this should also enhance situation-based need for closure, which may prematurely shut down the processing of information. If biculturals are more emotionally flexible, we argue, there will be some situations where they do not experience emotional tensions that others would feel. Thus, in some situations they may be able to make more fully thought-out decisions. While this pattern has not been verified empirically, it is suggested by prior work.

Biculturals have another potential advantage in decision making. The fundamental ingredients to decision making are information and ideas, which can come not only from within an individual but from the ideas of others they know and meet. If biculturals serve to link different clusters of people within a social situation—especially those who are from different backgrounds and thus think quite differently—then the bicultural is likely to have better access to ideas that are different and unique. In network terms, the network range for biculturals is likely to be greater than that of monoculturals because biculturals have access to a wider range of information.

Access to different clusters of people not only provides greater information, but also different views on the decision-making process itself. For example, scholars have consistently found that Chinese were less risk-averse than Germans and Americans when making financial investment decisions (Hsee, & Weber, 1999; Weber & Hsee, 1998; Weber, Hsee, & Sokolowska, 1998). That is, given the same financial option with the same expected value and the same fluctuation, Chinese perceived less risk and were willing to pay more than Germans and Americans. A bicultural with ties to both Chinese and Germans (or Americans) is likely to hear and know these alternative perspectives on risk. In another example, due to the emphasis on harmony and relationship, Chinese people are likely to be influenced by the majority's opinions when making decisions; by contrast, Westerners are more likely to base decisions on their own preferences and needs (Ng & Van Dyne, 2001; Torelli, 2006). Bicultural managers, having ties to people in both cultures, are likely to think about both sets of considerations when making a decision.

LEADERSHIP

The flexibility derived from being bicultural can be of great benefit to leaders. One core argument in the leadership literature is that leadership strategies and behaviors should be contingent upon the situations that leaders are facing (e.g., Fiedler, 1958), who the subordinates are (e.g., Hersey & Blanchard, 1969), or both (e.g., House, 1971). To be a good leader, one needs to have the cognitive, emotional and behavioral flexibility to manage different situations and different subordinates. For example, House's (1971) Path-Goal theory proposes that a good leader needs to clear the path for subordinates to reach a goal by engaging in different behaviors (achievement-oriented, directive, participative or supportive). The behavioral flexibility that comes from being bicultural should help a leader to adjust him- or herself to these different leadership demands; monocultural leaders are more likely to find themselves drawn back to one pattern of behavior, which may inhibit their ability to adjust to situational demands.

Another important concept in the leadership literature is leader-member exchange, defined as the exchange of material resources, information, and support between employees and leaders (Graen & Cashman, 1975; Graen & Scandura, 1987). A high quality of leader-member exchange has positive effects on job satisfaction, job performance, and commitment (see a meta-analysis by Gerstner & Day, 1997). Part of the exchange is subordinate mentoring (Kram, 1988). Mentoring requires not only analytic work but also emotional work, as mentors and subordinates seek to fully understand each other. Thomas (1990) has shown that social similarity between boss and subordinate helps to make that relationship more deep and effective. Some managers are better able to reach out and connect with subordinates who are different than them, while others tend to be able to only relate to those who are like themselves. The kind of emotional flexibility that biculturals have should help them to connect more deeply with a wider range of subordinates, enhancing the mentoring effectiveness, and also enhancing leader-member exchange and its benefits.

The benefits of having biculturals as leaders are even more salient in multicultural settings than in normal settings. Culture influences people's expectations for leaders, and the effectiveness of leadership styles can depend upon social context (e.g., House, Hanges, Javidan, Dorfman, & Gupta, 2004). For example, scholars have documented that participative leadership is effective in Germanic, Anglo, and Nordic European cultures, where the power distance between supervisor and subordinate is relatively low (Smith, Peterson, & Schwartz, 2002). By contrast, in cultures with high power-distance, such as the Middle Eastern, East European, Confucian Asian, and Southern Asian cultures, directive leadership is more effective. In the high power-distance cultures, leaders are expected to be paternalistic, know more than subordinates, give specific directions to subordinates, and be involved in nonwork lives of subordinates (Javidan & House, 2001; Smith et al., 2002). Bicultural leaders, who have a wider and more flexible behavioral repertoire, are better able than monocultural leaders to meet the leadership expectations of both types of employees. For example, they are capable of using participative leadership styles when interacting with subordinates from low power-distance cultures, while using directive leadership styles when interacting with subordinates from high power-distance cultures. This should also enhance the ability of bicultural leaders to build stronger leader-member exchange with subordinates from different cultures.

DISPUTE RESOLUTION

According to Mintzberg's (1973) classic study of managerial behavior, managers spend a significant amount of time managing disputes. They do this as part of their formal role as decision makers, because subordinates with differing views may come to their managers to resolve business issues. In addition, the dispute resolution role is emotional and personal, as these sorts of task conflicts are often imbued with interpersonal and relational issues. In effect, good managers have to be able to act as good mediators, as Karambayya and Brett (1989) have shown.

But what does it take to be an effective mediator? Kolb (1985) discusses the importance of intimacy and friendship with disputants—being able to connect with and relate to disputants. More broadly, it requires behaving in a way that generates a sense of interactional justice (Bies & Moag, 1986), meaning that people feel that they are treated with respect, dignity, politeness, and consideration. Politeness, according to Brown and Levinson (1987), means showing other parties that they are valued members of the community and acknowledging their autonomy as individuals. Being an effective mediator also requires that disputants feel a sense of procedural justice (Colquitt, Conlon, Porter & Ng, 2001), including the feeling the mediator is really listening to and hearing their arguments and concerns (Wall & Lynn, 1993).

The kind of emotional connection needed for interactional justice requires emotional flexibility of managers. Without real and expressed empathy for parties in a dispute, it will be harder for them to feel that there is a level of intimacy and respect needed in the interaction. At the same time, the feelings of understanding needed for procedural justice also requires a kind of emotional and cognitive flexibility, because an inability to adjust oneself to the way that disputants think and feel is

likely to be recognized by those parties. Given the importance of emotional and cognitive flexibility for mediation, we expect bicultural managers to do better than monocultural managers at resolving disputes within their organizations.

When managers act as mediators in organizations, they are not just dealing with two individuals but rather with people who are embedded in social networks. If disputants interact in more tightly knit social networks, they are more likely to share common friends, which can contain conflict escalation dynamics (Rubin, Pruitt, & Kim, 1994) and ensure that parties have more shared information. If bicultural managers are better able to build ties across subgroups within an organization, then disputes should be easier to resolve in social systems that include bicultural managers.

So far, we have talked about the benefits of biculturalism in resolving general disputes. However, biculturals may be especially helpful when disputants come from different cultures. Differences in dispute resolution styles across cultures are well known. Friedman, Chi, and Liu (2006) show that Chinese are more likely than Americans to take an indirect approach to managing conflict (that is, not approach the other party to explicitly argue their case), due to a greater inherent concern for the quality of the relationship. Leung (1987) has shown that in managing disputes, the in- versus out-group nature of the relationship between parties is more consequential for Chinese than Americans. Moreover, Friedman et al. (2007) have shown that arbitrator perceptions of organizational responsibility for a shortfall in performance are more heavily biased toward internal attributions and punishment for Chinese than for American arbitrators. Looking more broadly at collectivism versus individualism, Gelfand and Realo (1999) have shown that negotiators from collectivist and individualistic cultures respond differently to being observed in negotiations, with one acting more cooperatively and the other more aggressively when they are monitored.

If an organizational system is multicultural, parties are likely to not only have differences in interests that create disputes, but also have differences in how those very disputes should be managed. Those differences can be amplified by the fact that time pressure and ambiguity can create a situationally induced need for closure, which amplifies base cultural tendencies (Chiu et al., 2000). Under the stress of having to manage a dispute, people from different cultures are even more likely to have difficulties generating a shared mental model of the dispute resolution process. This makes dispute management in a multicultural system a great challenge.

Within that context, biculturals can be of great assistance and are likely to be in a better position to mediate cross-cultural disputes than monocultural employees are. First, they can understand the logic and emotions that drive the different cognitive, emotional, and behavioral tendencies of different parties. One factor that can escalate conflict is a perception that the other party is acting maliciously, leading in turn to a lessening of communication with that party and a reduction of inhibitions against aggression toward that party (Rubin et al., 1994). Biculturals, who are more likely to understand the basic of thinking by parties in a dispute, are less likely to attribute their actions and statements to bad intentions. They are consequently less likely to contribute to conflict escalation between the parties. At the same time, they are more likely to be trusted by both parties, which is a major element of acceptance of third parties in disputes (Karambayya & Brett, 1989; Karambayya, Brett & Lytle, 1992). Lam (2000) shows in a real setting how this dynamic can play out. She found out that when American and Chinese companies negotiated, it was a common practice to have Chinese American or Chinese people with extensive life or work experience in the U.S. to act as go-betweens. When problems or conflicts emerged, it was relatively easier for these bicultural people to approach the two parties for solutions.

Bicultural individuals can also be disputants themselves in some cases. The advantage for an organization is that bicultural individuals are likely to see more people within an organization as in-group to themselves, since they should feel part of people from either culture. Since aggression tends to be less when facing in-group rather than out-group others (Sherif, 1966), biculturals themselves should not be the source of disputes as much as monocultural individuals.

NEGATIVE EFFECTS OF DEEP-LEVEL BICULTURALISM

While we believe that biculturalism is likely to be beneficial, there are also several downsides to biculturalism that we should point out. One potential downside risk is inconsistency, which is the inverse of adaptability. Smooth adaptation to different cultural environments may be useful at times, but adaptation can result in a person acting very differently in different situations. This may make them appear inconsistent, unstable, or even unreliable. Being a cultural chameleon is not necessarily always welcome. Imagine that a bicultural leader gives a lot of freedom to an American subordinate by engaging in participative leadership, while the same leader gives a lot of direction to a Chinese subordinate by engaging in directive leadership. The two subordinates may work effectively with different leadership styles. However, when they find out that the leader treats them differently, they may wonder whether the leadership approach of the supervisor is real and whether they were indeed treated fairly (because others were treated differently).

Another downside of biculturalism is that decision making can be very time consuming. In the conflict resolution literature, scholars suggest that using an integrative conflict resolution style may be more likely to produce higher satisfaction for all of the parties, but this process is very time consuming. As a result, when decisions need to be made within a short period or if an integrative approach is used for every decision, taking an integrative approach may be inefficient or even detrimental (Thomas, 1992). A parallel argument can be applied to biculturalism. Although biculturalism can satisfy the needs of people from different cultures, it may take a lot of time for biculturals to consider different cultural aspects of a situation, analyze the environment carefully, and take corresponding actions. When timing is a critical factor in making decisions, biculturalism may slow down the decision-making process. Biculturals' awareness of many different ways of thinking about a situation may also lead to a reduction of confidence in themselves. No matter which approach is used in a situation (the norms of culture A or culture B), they will likely be violating the norms of the other culture. As a result, doubts may set in so that the bicultural is more uncertain.

CONCLUSION

In this chapter, we have argued that biculturalism provides distinct advantages in the workplace. Bicultural managers and employees have unique experiences that provide them with a kind of cognitive, emotional, and behavioral flexibility. This comes from their deep understanding of multiple cultural systems and their experience stepping “outside” of one culture or perspective. Returning to the work of Alfred Scheutz (1944, 1945), to have experienced being a stranger in another culture (rather than just being a tourist in that culture) reshapes world views and allows for cultural frame shifting that has been studied so much in recent years. In addition, biculturalism is likely to reshape social systems, ensuring greater connectivity between people within social networks, making it less likely that clusters of culturally different employees remain disconnected.

These core effects of biculturalism can benefit managers in a number of ways. The cognitive, emotional, and behavioral flexibility of biculturals should enhance team processes, making teams better able to draw on the knowledge of each member and less likely to be caught in typical traps of groups such as premature decision making. Biculturals should be less vulnerable to individual decision-making traps such as the confirmation bias, and better able to access information due to higher network density. Bicultural leaders should be better able to maintain productive exchange relations with subordinates, enhancing the quality of leader-member exchange. And as managers deal with disputes, biculturals should be in a better position to empathize with and understand disputants, and better able to help resolve those disputes.

These benefits, we argue, pertain to situations where organizations are multicultural, but they are not just limited to multicultural situations. In all cases—managing teams, decision making, leadership, and dispute resolution—the benefits should apply to these core managerial tasks even

in monocultural situations. Biculturalism's psychological and structural effects should endow managers with a set of core interpersonal and structural advantages.

REFERENCES

- Abelson, R. P. (1976). Script processing in attitude formation and decision making. In J. S. Carroll & J. Payne (Eds.), *Cognition and social behavior*. Hillside, NJ: Lawrence Erlbaum Associates.
- Adair, W. L., Okumura, T., & Brett, J. M. (2001). Negotiation behavior when cultures collide: The United States and Japan. *Journal of Applied Psychology*, 86, 371–385.
- Anthias, F. (2001). New hybridities, old concepts: The limits of “culture.” *Ethnic & Racial Studies*, 24, 619–641.
- Ausubel, D. P. (1960). Acculturative stress in modern Maori adolescence. *Child Development*, 31, 617–631.
- Benet-Martínez, V., Lee, F., & Leu, J. (2006). Biculturalism and cognitive complexity expertise in cultural representations. *Journal of Cross-Cultural Psychology*, 37, 386–407.
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. (2002). Negotiating biculturalism: Cultural frame-switching in biculturals with “oppositional” vs. “compatible” cultural identities. *Journal of Cross-Cultural Psychology*, 33, 492–516.
- Berger, P., Berger, B., & Kellner, H. (1973). *The homeless mind*. New York: Vintage Books.
- Berreman, G. D. (1964). About reference group alienation, mobility, and acculturation. *American Anthropologist, New Series*, 66, 231–250.
- Berry, J. W. (1980). Acculturation as varieties of adaptation. In A. M. Padilla (Ed.), *Acculturation theory, models and some new findings*. American Association for the Advancement of Science Selected Symposium, 39, (pp. 9–25). Boulder, CO: Westview.
- Berry, J. W. (1997). Immigration, acculturation and adaption. *Applied Psychology: An International Review*, 46, 5–34.
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review*, 38, 185–206.
- Bies, R. J., & Moag, J. F. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on negotiations in organizations* (Vol.1, pp. 43–55). Greenwich, CT: JAI Press.
- Black, C. E. (1966). *The dynamics of modernization*. N.Y.: Harper and Row.
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53, 279–307.
- Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge, UK: Cambridge University Press.
- Burt, R. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Bunderson, J. S., & Sutcliffe, K. M. (2002). Comparing alternative conceptualizations of functional diversity in management teams: Process and performance effects. *Academy of Management Journal*, 45, 875–893.
- Cenoz, J., & Genesee, F. (1998). Psycholinguistic perspectives on multilingualism and multilingual education. In J. Cenoz & F. Genesee (Eds.), *Beyond bilingualism: Multilingualism and multilingual education*. Clevedon, UK: Multilingual Matters Ltd.
- Chance, Norman A. (1965). Acculturation, self-identification, and personality adjustment. *American Anthropologist*, 67, 372–393.
- Chiu, C. Y., Morris, M. W., Hong, Y. Y., & Menon, T. (2000). Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need for closure. *Journal of Personality and Social Psychology*, 78, 247–259.
- Colquitt, J. A., Conlon, D. E., Porter, C. O. L. M., & Ng, Y.-Y. (2001). Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86, 425–45.
- DePaulo, B. M. (1992). Nonverbal behavior and self-presentation. *Psychological Bulletin*, 111, 203–243.
- Deresky, H. (2002). *Global management*. Upper Saddle River, NJ: Prentice Hall.
- Earley, P. C. (2002). Redefining interactions across cultures and organizations: Moving forward with cultural intelligence. *Research in Organizational Behavior*, 24, 271–299.
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: An analysis of individual interactions across cultures*. Palo Alto, CA: Stanford University Press.
- Edmonson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44, 350–383.
- Eisenstadt, S. N. (1966). *Modernization: Protest and change*. Englewood Cliffs, NJ: Prentice-Hall.

- Elfenbein, H. A. (2006). Learning in emotion judgments: Training and the cross-cultural understanding of facial expressions. *Journal of Nonverbal Behavior*, 30, 21–36.
- Elfenbein, H. A., & Ambady, N. (2002). On the universality and cultural specificity of emotion recognition: A meta-analysis. *Psychological Bulletin*, 128, 203–235.
- Elfenbein, H. A., & Ambady, N. (2003). When familiarity breeds accuracy: Cultural exposure and facial emotion recognition. *Journal of Personality and Social Psychology*, 85, 276–290.
- Ekman, P. (1972). Universals and cultural differences in facial expressions of emotion. In J. Cole (Ed.), *Nebraska symposium on motivation*, 1971 (Vol. 19, pp. 207–282). Lincoln: University of Nebraska Press.
- Encarta Dictionary. Accessed on September 24, 2008 at <http://encarta.msn.com/encnet/dictionary/dictionary-home.aspx>
- Encarta® World English Dictionary [North American Edition] © & (P)2007 Microsoft Corporation. All rights reserved. Developed for Microsoft by Bloomsbury Publishing Plc.
- Fiedler, F. E. (1958). *Leader attitudes and group effectiveness*. Urbana: University of Illinois Press.
- Friedman, R. (1994). *Front stage, backstage: The dramatic structure of labor negotiations*. Cambridge, MA: MIT Press.
- Friedman, R., Chi, S-C, & Liu, L. A.(2006). An expectancy model of Chinese-American differences in conflict-avoiding. *Journal of International Business Studies*, 37, 76–91.
- Friedman, R., Liu, W., Chen, C., & Chi, S. (2007). Causal attribution for inter-firm contract violation: A comparative study of Chinese and American commercial arbitrators. *Journal of Applied Psychology*, 92, 856–864.
- Friedman, R., Liu, W., Chi, S., & Hong, Y. (2006, August). Western exposure: The effects of foreign experience on Taiwanese managers cognition. Academy of Management meeting, Atlanta, GA.
- Friedman R., and Podolny, J. (1992). Differentiation of boundary spanning roles: Labor negotiations and implications for role conflict. *Administrative Science Quarterly*, 37(1), 28–47.
- Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall.
- Geertz, C. (1963). Relativism and universals.In C. Geertz, (Ed.), *Old societies and new states* (pp. 105–157). London: Free Press.
- Gelfand, M. J., & Realo, A. (1999). Individualism-collectivism and accountability in intergroup negotiations. *Journal of Applied Psychology*, 84, 721–36.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82, 827–844.
- Gigone, D., & Hastie, R. (1997). The impact of information on small group choice. *Journal of Personality and Social Psychology*, 72, 132–140.
- Goffman, E. (1959). *The presentation of self in everyday life*. Garden City, NY: Doubleday/Anchor Books.
- Goldstein, J., & Morning, A. J. (May 23, 2000). The multiple-race population of the United States: Issues and estimates. *Proceedings of the National Academy of Sciences*, 97, 6230–6235.
- Graen, G. B., & Cashman, J. (1975). A role-making model of leadership in formal organizations: A developmental approach. In J. G. Hunt & L. L. Larson (Eds.), *Leadership frontiers* (pp. 143–166). Kent, OH: Kent State University Press.
- Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 9 (pp. 175–208). Greenwich, CT: JAI Press.
- Gruenfeld, D. H., Mannix, E. A., Williams, K. Y. & Neal, M. A. (1996). Group composition and decision making: How member familiarity and information distribution affect process and performance. *Organizational Behavior and Human Decision Processes*, 67, 1–15.
- Hastorf, A. H. & Cantril, H. (1954). They saw a game: A case study. *Journal of Abnormal and Social Psychology*, 49, 129–134.
- Heider, F. (1958). *The psychology of interpersonal relation*. New York: John Wiley & Sons.
- Hersey, P., & Blanchard, K. H. (1969). Life cycle theory of leadership. *Training and Development Journal*, 23, 26–34.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability and salience. In E. T. Higgins & A. E. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.
- Hochschild, A. R. (1979). Emotion work, feeling rules and social structure. *American Journal of Sociology*, 85, 551–575
- Holtgraves, T. (1997). Styles of language use: Individual and cultural variability in conversational indirectness. *Journal of Personality and Social Psychology*, 73, 624–637.

- Hong, Y. Y., Benet-Martínez, V., Chiu, C., & Morris, M. (2003). Boundaries of cultural influence: Construct activation as a mechanism for cultural differences in social perception. *Journal of Cross-Cultural Psychology*, 34, 453–464.
- Hong, Y. Y., Morris, M., Chiu, C. Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Hong, Y. Y., Wan, C., No, S., & Chiu, C. Y. (2007). Multicultural identities. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 323–345). New York: Guilford Press.
- House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Leadership Review*, 16, 321–339.
- House, R. J., Hanges, P. W., Javidan, M., Dorfman, P., Gupta, V. (Eds.). (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.
- Hsee, C. K., & Weber, E. U. (1999). Cross-national differences in risk preference and lay predictions. *Journal of Behavioral Decision Making*, 12, 165–179.
- Hu, W., & Grove, C. (1999). *Encountering the Chinese: A guide for Americans*. Boston: Intercultural Press.
- Javidan, M., & House, R. J. (2001). Cultural acumen for the global manager: Lessons from project GLOBE. *Organizational Dynamics*, 29, 289–305.
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40, 256–282.
- Karambayya, R., & Brett, J. M. (1989). Managers handling disputes: Third-party roles and perceptions of fairness. *Academy of Management Journal*, 32, 687–704.
- Karambayya, R., Brett, J. M., & Lytle, A. (1992). Effects of formal authority and experience on third-party roles, outcomes, and perceptions of fairness. *Academy of Management Journal*, 35, 426–438.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, 72, 1245–1267.
- Kolb, D. M. (1985). To be a mediator: Expressive tactics in mediation. *Journal of Social Issues*, 41, 11–26.
- Kosic, A., Kruglanski, A. W., Pierro, A., & Mannetti, L. (2004). The social cognition of immigrants' acculturation: Effects of the need for closure and the reference group at entry. *Journal of Personality and Social Psychology*, 86, 796–813.
- Kram, K. E. (1988). *Mentoring at work: Developmental relationships in organizational life*. Glenview, IL: Scott, Foresman.
- Kruglanski, A. W. (1990). Motivations for judging and knowing: Implications for causal attribution. In E. T. Higgins & R. M. Sorrentino (Eds.), *The handbook of motivation and cognition: Foundation of social behavior* (Vol. 2, pp. 333–268). New York: Guilford Press.
- LaFromboise, T., Coleman, H., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, 114, 395–412.
- Lam, M. L. (2000). *Working with Chinese expatriates in business negotiations: Portraits, issues, and applications*. Westport, CT: Quorum Books.
- Leung, K. (1987). Some determinants of reactions to procedural models for conflict resolution: A cross-national study. *Journal of Personality and Social Psychology*, 53, 898–908.
- Leung, A. K., & Chiu, C. Y. (in press). Multicultural experience, idea receptiveness, and creativity. *Journal of Cross-Cultural Psychology*.
- Leung, K. Y., Maddux, W. W., Galinsky, A. D., Chiu, C. Y., & Law, W. (2008). *Does multicultural experience enhance creativity? If so, how, and when?* American Psychologist, 63, 169–181.
- Levy Jr., M. (1972). *Modernization: Latecomers and survivors*. New York: Basic Books.
- Lewin K. (1943). Defining the “Field at a Given Time.” *Psychological Review*, 50: 292–310. Republished in *Resolving social conflicts & field theory in social science* (1997) (pp. 200–211). Washington, DC: American Psychological Association.
- Lincoln, J. R., & Miller, J. (1979). Work and friendship ties in organizations: A comparative analysis of relational networks. *Administrative Science Quarterly*, 24, 181–199.
- Liu, L. A., Friedman, R. & Chi, S. (2005). RenQing' versus the 'Big 5': The need for culturally sensitive measures of individual differences in negotiations. *Management and Organization Review*, 1, 225–247.
- Lutz, C. (1988). *Unnatural emotions: Everyday sentiments on a Micronesian atoll and their challenge to Western theory*. Chicago: University of Chicago Press.
- Markus, H., & Kitayama, S. (1991). Culture and self: implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Marsden, P. V. (1988). Homogeneity in confiding relations. *Social Networks*, 10, 57–76.

- Mayer, R. E. (1992). *Thinking, problem solving and cognition*. New York: W. H. Freeman.
- Mesquita, B., & Frijda, N. H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112: 179–204.
- Meyer, D., & Kieras, D. (1997). A computational theory of executive cognitive processes and multiple task performance: Part 2. Accounts of psychological refractory-period phenomenon. *Psychological Review*, 104, 749–791.
- Miller, D., & Friessen, P. H. (1984). *Organizations: A quantum view*. Englewood Cliffs, NJ: Prentice-Hall.
- Mintzberg, H. (1973). *The nature of managerial work*. New York: Harper & Row.
- Morris, M. W., & Gelfand, M. J. (2004). Cultural differences and cognitive dynamics: Expanding the cognitive perspective on negotiation. In M. J. Gelfand & J. M. Brett (Eds.), *The handbook of negotiation and culture* (pp. 95–113). Stanford, CA: Stanford University Press.
- Morris, M. W., Williams, K. Y., Leung, R., Lerrick, M. T., Mendoza, D., Bhatnagar, J., et al. (1998). Conflict management style: Accounting for cross-national differences. *Journal of International Business Studies*, 29(4): 729–748.
- Nash, M. (1967). *Machine-age Maya*. Chicago: University of Chicago Press.
- Nisbett, R., & Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice-Hall.
- Ng, K. Y., & Van Dyne, L. (2001). Individualism–collectivism as a boundary condition for effectiveness of minority influence in decision making. *Organizational Behavior and Human Decision Processes*, 84, 198–225.
- No, S., Hong, Y. Y., Liao, H. Y., Lee, K., Wood, D., & Chao, M. M. (in press). *Race and psychological essentialism: Lay theory of race moderates Asian Americans' responses toward American culture*. Journal of Personality and Social Psychology.
- Pye, L. (1963). *Politics, personality and nation-building: Burma's search for identity*. New Haven, CT: Yale University Press.
- Rafaeli, A., & Sutton, R. I. (1987). Expression of emotion as part of the work role. *Academy of Management Review*, 12, 23–37.
- Redding, G. (1993). *The spirit of Chinese capitalism*. New York: Walter de Gruyter.
- Ross, M., Xun, W. Q. E., & Wilson, A. E. (2002). Language and the bicultural self. *Personality and Social Psychology Bulletin*, 28, 1040–1050.
- Rubin, J. Z., Pruitt, D. G., & Kim, S. H. (1994). *Social conflict: Escalation, stalemate, and settlement* (2nd ed.). New York: McGraw-Hill.
- Schuetz, A. (1944). The stranger. *American Journal of Sociology*, 49, 499–507.
- Schuetz, A. (1945). The homecomer. *American Journal of Sociology*, 50, 369–376.
- Scherer, K. R. (1997). The role of culture in emotion-antecedent appraisal. *Journal of Personality and Social Psychology*, 73, 902–922.
- Schulz-Hardt, S., Frey, D., Lüthgens, C., & Moscovici, S. (2000). Biased information search in group decision making. *Journal of Personality and Social Psychology*, 78, 655–669.
- Seligman, S. D. (1999). *Chinese business etiquette*. New York: Time Warner.
- Shenkar, O., & Ronen, S. (1987). The cultural context of negotiations: The implications of Chinese interpersonal norms. *Journal of Applied Behavioral Science*, 23, 263–275.
- Sherif, M. (1966). In *common predicament: Social psychology of intergroup conflict and cooperation*. Boston: Houghton-Mifflin.
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85, 102–111.
- Singer, M. (1972). *When a great tradition modernizes: An anthropological approach to Indian civilization*, New York: Praeger.
- Smith, P. B., Peterson, M. F., & Schwartz, S. H. (2002). Cultural values, sources of guidance, and their relevance to managerial behavior: A 47-nation study. *Journal of Cross-Cultural Psychology*, 33, 188–208.
- Sutton, R. I., & Rafaeli, I. (1988). Untangling the relationship between displayed emotions and organizational sales: The case of convenience stores. *Academy of Management Journal*, 31, 461–487.
- Tadmor, C. T., & Tetlock, P. E. (2006). Biculturalism: A model of the effects of second-culture exposure on acculturation and integrative complexity. *Journal of Cross-Cultural Psychology*, 37, 173–190.
- Tadmor, C. T., Tetlock, P. E., & Peng, K. (2006, August). Biculturalism and integrative complexity: Testing the acculturation complexity model. Paper presented at the annual meeting of the Academy of Management. Atlanta, GA. Academy of Management Best Proceedings.

- Thomas, D. A. (1990). The impact of race on managers' experiences of developmental relationships (mentoring and sponsorship): An intra-organizational study. *Journal of Organizational Behavior, 11*, 479–492.
- Thomas, K. W. (1992). Conflict and negotiation processes in organizations. In M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 3, pp. 651–717). Palo Alto, CA: Consulting Psychologists Press.
- Thompson, L. L. (2004). *Making the team: A guide for managers*. Upper Saddle River, NJ: Prentice-Hall.
- Tinsley, C. (2001). How negotiators get to yes: Predicting the constellation of strategies used across cultures to negotiate conflict. *Journal of Applied Psychology, 86*, 583–593.
- Torelli, C. J. (2006). Individuality or conformity? The effect of independent and interdependent self-concepts. *Journal of Consumer Psychology, 16*, 240–248.
- Tsui, A. S., & O'Reilly, C. A. III (1989). Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal, 32*, 402–423.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*: 1124–1130.
- Wall, J. A., Jr., & Lynn, A. (1993). Mediation: A current review. *Journal of Conflict Resolution, 37*, 160–194.
- Ward, T. B. (1994). Structured imagination: The role of conceptual structure in exemplar generation. *Cognitive Psychology, 27*, 1–40.
- Weber, E. U., & Hsee, C. K. (1998). Cross-cultural differences in risk perception, but cross-cultural similarities in attitudes towards perceived risk. *Management Science, 44*, 1205–1217.
- Weber, E. U., & Hsee, C. K. (2000). Culture and individual judgment and decision making. *Applied Psychology: An International Review, 49*, 32–61.
- Weber, E. U., Hsee, C. K., & Sokolowska, J. (1998). What folklore tells us about risk and risk taking: Cross-cultural comparisons of American, German, and Chinese proverbs. *Organizational Behavior and Human Decision Processes, 75*, 170–186.

21 Buffering Acculturative Stress and Facilitating Cultural Adaptation

Nostalgia as a Psychological Resource

Constantine Sedikides, Tim Wildschut, Clay Routledge, Jamie Arndt, and Xinyue Zhou

Immigration and migration, albeit a steady force throughout human history, are reaching unprecedented proportions. There were 191 million immigrants in 2005, projected to reach 350 million by the year 2025 (United Nations, 2002, 2006). Adding to this statistic are the short-term migrants: assorted sojourners or expatriates, approximately one million international students each year (Open Doors, 1996/1997), and 874 million tourists in 2005, projected to reach 1.6 billion by 2020 (United Nations World Tourism Organization, 2006, 2008).

Our focus in this chapter is on immigrants, although our discussion is also relevant to migrants—especially sojourners, expatriates, and international students. We first discuss the negative experiences or stressors facing immigrants as they strive to adjust in their host country (also referred to as recipient society or society of settlement). We proceed with a consideration of a crucial psychological consequence of these stressors: acculturative stress. Next, we introduce the construct of nostalgia, elaborate on its properties and triggers, and highlight its functions as a psychological resource. In the ensuing section, we offer and develop the central claim of this chapter. Specifically, we emphasize the role of nostalgia as a coping strategy for alleviating acculturative stress and for contributing to successful acculturation patterns (e.g., integration).

IMMIGRANT STRESSORS

Immigrants typically flee their home country to find relief from unfavorable conditions such as poverty, human rights violations, famine, natural disasters, or wars (*push factors*; Sam, 2006). They may also be motivated by conditions that promise a better financial future or guarantee personal and civic liberties in the host country (*pull factors*; Richmond, 1993). Regardless, immigrants are likely to be vulnerable from the get-go. Moreover, they encounter in the host country unrelenting economic, cultural, and social obstacles (i.e., stressors) that may exacerbate their vulnerability to the risks involved. Let us elaborate on this point.

According to Pettigrew's (1997) model of personality and social structure and its adaptation by Deaux (2006), immigrants' experiences (attitudes, values, expectations, motivations, identities, memories) are subject both to macro-level and meso-level influences. The former influences refer to social structures (e.g., immigration policy, demographic patterns). The latter influences refer to social interactions (e.g., intergroup attitudes and behaviors, stereotypes, social networks).

Macro-level influences can have a direct effect on the individual immigrant (e.g., visas denied or granted, family class immigration restricted or expanded), but many such effects are filtered through the meso-level. For the purposes of this chapter, we will concentrate on meso-level consequences, and in particular on perceptions of and behavior toward immigrants.

Despite the rhetoric about globalization, interdependence, and multiculturalism, immigrants are largely seen as a threat to receiving societies (Pettigrew, 1998; Stephan & Stephan, 2000; Thalhammer, Zucha, Enzenhofer, Salfinger, & Ogris, 2000). The threat can be classified as symbolic or material (Esses, Dovidio, Jackson, & Armstrong, 2001). *Symbolic threat* refers to perceived challenges to the collective identity of the majority (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Immigrant groups are viewed as potentially altering the homogenous and positively distinct identity of the dominant group. They are perceived as diluting the national identity. This perception may contribute to negative attitudes toward immigrants and to attempts to deprive them of opportunities (i.e., discriminatory behavior; Stephan & Renfro, 2002; Stephan, Renfro, Esses, Stephan, & Martin, 2005). *Material threat* refers to perceived challenges to the financial and status well-being (e.g., economic advantages, political power, social prestige) of the majority. Immigrant groups are seen as laying competitive claims to resources, something that is presumed to be to the detriment of the majority. This perception increases resource competition and may contribute to the restriction of immigrant access to resources, if not the “removal” of the source of competition (Campbell, 1965; Esses, Jackson, & Armstrong, 1998; Wright, Taylor, & Moghaddam, 1990). Such inclinations are considered to be more pronounced in times of economic recession (Espenshade & Hempstead, 1996), when the majority holds zero-sum beliefs (i.e., gains for immigrants come at the expense of losses for nonimmigrants; Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998), and when the majority is prone to an ideology that advocates unequal resource distribution or group dominance (Social Dominance Orientation; Pratto, Sidanius, Stallworth, & Malle, 1994).

Research, both correlational and experimental, has been consistent with the threat perspective on immigration (Esses, Jackson, Nolan, & Armstrong, 1999; Jackson & Esses, 2000). For example, members of the receiving society perceive negatively those immigrants who are ostensibly poor and relatively unintegrated into the “mainstream,” as they are considered a drain on social services (e.g., healthcare, unemployment benefits) and a threat to national identity (Johnson, Farrell, & Guinn, 1997). Paradoxically, members of the receiving society also perceive negatively those immigrants who are ostensibly well-off. Their economic and social success is viewed as depriving the majority of resources and as a status threat to the national identity (Johnson et al., 1997). These negative perceptions are exacerbated when economic conditions are poor (Zagefka, Brown, Broquard, & Martin, 2007), unemployment rates are high (Palmer, 1996), and immigrant numbers are large (Quillian, 1995). Furthermore, majority members who are high on Social Dominance Orientation or endorse strongly zero-sum beliefs are more likely to perceive immigrants as competing for scarce resources and, thus, to hold more negative attitudes toward them (Esses et al., 2001; Pratto & Lemieux, 2001). Finally, the more “foreign” or distinct an immigrant group is from the dominant group, the more likely it is for the immigrant group to stand out as a potential competitor and to be the target of national stereotypes or ethnophaulisms (i.e., ethnic slurs; Mullen, 2001; Rothmann, Piontkowski, & van Randenborgh, 2008; Zagefka et al., 2007).

Immigrants, then, are required to cope not only with adverse economic circumstances and the unfamiliarity of language, policies, customs, and norms of the receiving society, but also with “social hardships” such as stereotypes, prejudice, and discrimination (Berry, Kalin, & Taylor, 1977; Davis & Smith, 1994; Mizrahi, 2005; Thalhammer et al., 2000). These social hardships are rather universal: immigrants report being victims of prejudice and discrimination in virtually all countries where research on the topic has been conducted (e.g., Australia, Bangladesh, Belgium, Canada, France, Germany, Great Britain, Greece, India, Malaysia, New Zealand, Singapore, Thailand, United States; for a review, see Ward & Leong, 2006). Prejudice is sometimes subtle, sometimes blatant. The former involves the promulgation of traditional values or the exaggeration of cultural

differences. The latter involves face-to-face and hostile communication, such as an American restaurant manager telling a Mexican employee: "I know how you Spanish boys are about stealing stuff" (Greenhouse, 2005). Furthermore, discrimination is sometimes indirect, sometimes direct (Dovidio & Gaertner, 2004; Dovidio, Kawakami, & Gaertner, 2002; Pettigrew, 1998; Pettigrew & Meertens, 1995). Indirect discrimination involves earlier decisions that set the stage for subsequent discriminatory consequences. An example is policies about the rights of immigrants, which render long-term upward mobility virtually impossible. As an Argentinean immigrant in the U.S. put it, "Once you reach a certain level, you realize that the next job up is only for Americans" (Javier, 2004). Direct discrimination involves easily observable and inferior work or living conditions for immigrants. For example, immigrants suffer from a higher unemployment rate than natives in every western European country (Pettigrew, 1998) and newly arrived immigrants are highly likely to experience downward occupational mobility (e.g., working on jobs that are below their educational or skill level) in the U.S. (Foner, 1979). These factors contribute to acculturative stress.

ACCULTURATIVE STRESS

The construct of acculturative stress was coined by Berry (1970). It is defined as an immigrant's "response ... to life events that are rooted in intercultural contact" (Berry, 2006, p. 43). Acculturative stress is due to the cumulative nature of economic, cultural, and social predicaments encountered in the host country, although these stressors can be exacerbated by conditions inherent in the immigrant's society of origin (e.g., lack of education). More generally, the stress stems from the joint and often conflicting requirements of participation in two cultures.

Several factors moderate the degree of acculturative stress (Berry, 2006). Some factors are intrapersonal. For example, migration motivation plays a role (Richmond, 1993): push motivation may be associated with higher levels of stress than pull motivation (Kim, 1988).

Also, immigrants who perceive the intersection of their two cultural worlds as dissociated rather than overlapping and as inherently conflictual rather than harmonious are likely to experience more acculturative stress (Benet-Martínez & Haritatos, 2005). Other factors pertain to the society of origin. For example, the more culturally distant this society is from the host society, the higher the stress level will be (Dunbar, 1992; Ward & Kennedy, 1993). Still other factors pertain to the society of settlement (Murphy, 1965). For example, societies that endorse a multicultural ideology (and thus accept cultural pluralism and value cultural diversity as a communal resource) are conducive to lower levels of acculturative stress than societies that seek either to reduce immigration through assimilation policies or to marginalize, if not segregate, diverse populations. Yet, even multicultural societies differ in their stereotypical beliefs, prejudicial attitudes, and discriminatory practices about immigrants of various ethnic, racial, or religious groups. In particular, host societies have a hierarchy of immigrant group acceptance (Berry & Kalin, 1995; Hagendoorn, 1993). Unsurprisingly, members of groups low in this hierarchy are more likely to be targets of hostility, exclusion, and discrimination (Liebkind & Jasinskaja-Lahti, 2000; Noh, Beiser, Kaspar, Hou, & Rummens, 1999). A final set of factors pertains to the interplay between intrapersonal and social contextual factors. Examples involve the personality characteristics of conformity values (i.e., politeness, self-discipline, honoring of parents and elders, obedience) and need for closure ("desire for a definitive answer to a question, any firm answer, rather than uncertainty, confusion, or ambiguity"; Kosic, Kruglanski, Pierro, & Mannetti, 2004, p. 797). Immigrants who endorse conformity as a value experience a relatively high level of acculturative stress (e.g., low well-being) when they perceive high rather than low pressures to assimilate (Roccas, Horenczyk, & Schwartz, 2000), and immigrants high in need for closure likely experience more stress when they socialize exclusively with members of their own ethnic group rather than with members of the host culture (Kosic et al., 2004).

What does acculturative stress entail? It entails negative affectivity (Beiser, Johnson, & Turner, 1993; Berry, 2006; Ward, Bochner, & Furnham, 2001). Specifically, it involves bad moods and anxiety, due to uncertainty about how one should lead their daily lives in the new society. It also

involves heightened levels of depression, due to felt loss of the original culture. This may be especially likely to the extent that the original culture provided an important pillar of meaning. Without such foundations of meaning, depression may be more likely to follow (Simon, Arndt, Greenberg, Pyszczynski, & Solomon, 1998). Finally, acculturative stress involves loneliness due to the relative lack of social networks and support systems. How, then, can the immigrating individual combat this situation that threatens to erode psychological equanimity? What psychological defenses can be marshaled for protection? We argue that immigrants can counter this constellation of negative affectivity symptoms by resorting to nostalgia (Brown & Humphreys, 2002; Volkan, 1999). Thus, perhaps ironically, we suggest that turning to nostalgic memories of their past cultural heritage might offer resources for staving off a seemingly uninspiring present and future in the host country. We elaborate on this idea below.

NOSTALGIA AND ITS FUNCTIONS

In this section, we offer our conceptual definition of nostalgia, present empirical support for this conceptualization, examine some triggers of nostalgia, and highlight the pivotal psychological functions of nostalgia. Before proceeding, however, we would like to clarify two definitional issues.

First, we note that our interest is in personal nostalgia, defined as “a sentimental longing for the past” (*The New Oxford Dictionary of English*, 1998, p. 1266). Hence, our discussion excludes other types of nostalgia, such as historical nostalgia defined as a sentimental longing for a historical period of which one may or may not have been a part.

Second, we differentiate between nostalgia and homesickness (Fisher, Frazer, & Murray, 1984; Fisher & Hood, 1987; van Tilburg, Vingerhoets, & van Heck, 1996). Nostalgia, as we discuss below, is a predominantly positive emotion, whereas homesickness is a predominantly negative emotion. In an early demonstration of this point, Davis (1979) reported that participants associate the words *warm*, *childhood*, *old times*, and *yearning* more frequently with nostalgia than with homesickness. More generally, homesickness refers to psychological problems (e.g., separation anxiety, rumination, distress) that accompany transitions to new environments (e.g., boarding school, university, armed forces) rather than sentimental longing about aspects of one’s past. In addition, nostalgia pertains to many more objects than homesickness (Wildschut, Sedikides, Arndt, & Routledge, 2006, Studies 1–2). Specifically, nostalgic accounts refer to close others (family members, partners, friends), momentous occasions (vacations, birthdays, family reunions), picturesque settings (lakes, mountains, sunsets), tangibles (watches, coats, cars), and pets; however, homesickness accounts refer only to one’s place of origin. Finally, homesickness is short-lived (Brewin, Furnham, & Howes, 1989; Stroebe, van Vliet, Hewstone, & Willis, 2002), whereas nostalgia occurs frequently (e.g., at least once a week in 79% of respondents: Wildschut et al., 2008, Study 2) and is pervasive across the life span (Sedikides, Wildschut, Routledge, & Arndt, 2008; Zhou, Sedikides, Wildschut, & Gao, in press).

NOSTALGIA AS A SELF-RELEVANT, SOCIAL, AND POSITIVE EMOTION

In our early theoretical work, we conceptualized nostalgia as a self-relevant, social, and positive emotion (Sedikides, Wildschut, & Baden, 2004), and we proceeded to conduct research to examine whether there is empirical evidence for this conceptualization. In the initial set of studies by Wildschut et al. (2006), Study 1 reported a content analysis of reader narratives published in the American periodical *Nostalgia*. Study 2 reported a content analysis of British university undergraduates’ nostalgic experience. The results of these two studies converged and are summarized below.

The self was almost always the main character in the nostalgic narrative. The self, however, was almost invariably surrounded by close relationships. These findings illustrate that nostalgia is a self-relevant and social emotion.

Nostalgia is also a positive emotion. Although there was evidence of bittersweetness (i.e., some narratives featured themes of disappointment, loss, and separation), expressions of positive affect far exceeded expressions of negative affect. Moreover, nostalgic (vs. ordinary) events induced higher levels of happiness than of sadness. Finally, the structure of the nostalgia narratives was positive. That is, this structure followed a redemptive sequence (where negative life scenes turn into positive ones) rather than a contamination sequence (where positive life scenes turn into negative ones; McAdams, 2001).

TRIGGERS OF NOSTALGIA

Negative affectivity, as mentioned above, is the hallmark of acculturative stress. Is nostalgia triggered by negative affectivity, such as sad mood or loneliness? We carried out several studies to find out.

In a laboratory experiment (Wildschut et al., 2006, Study 3), we placed British undergraduates in either a bad mood (when they read about the recent tsunami in Asian and African coastal regions), a neutral mood (when they read about a recent landing of the Huygens probe on Titan), or a good mood (when they read about a recent birth of a polar bear at a zoo). Subsequently, we asked participants to complete a nostalgia measure (i.e., the extent to which they missed aspects of their past, such as “someone I loved,” “holidays I celebrated,” “my pets,” and “past TV shows”; Batcho, 1995). Participants reported higher levels of nostalgia when in a bad mood than when in a neutral or good mood. Bad mood, then, induces nostalgia.

But how about loneliness? We (Zhou et al., *in press*, Study 1) first addressed this question in a correlational and field study, involving migrant Chinese children between ages 9 and 15. The children had migrated to the city of Guangzhou (with their parents) from rural areas. The children filled out dispositional measures of loneliness and nostalgia. As expected, the lonelier the children were, the more nostalgic they felt. We replicated these results in a correlational and field study involving a sample of Chinese factory workers (Zhou et al., Study 4). Furthermore, we sought to replicate these finding in the laboratory (Zhou et al., Study 2). Thus, we experimentally induced high versus low loneliness in Chinese undergraduate students. In particular, we provided participants with bogus feedback about their performance on a “loneliness test.” Some participants learned that they scored high, and others that they scored low, on loneliness. Subsequently, all participants completed a state nostalgia measure. Replicating an earlier experiment with British undergraduate students (Wildschut et al., 2006, Study 4), participants in the “high loneliness” condition reported being more nostalgic than participants in the “low loneliness” condition.

Subjective reports are congruent with these correlational and experimental results. British undergraduates state that they become nostalgic when they feel sad or lonely (Wildschut et al., 2006, Study 2). Together, then, these findings suggest that nostalgia can be recruited, either spontaneously or intentionally, to serve a palliative function. The psychological significance of nostalgia for immigrants may lie in its capacity to counteract negative affectivity and restore psychological health. We discuss next how nostalgia might confer these benefits.

FUNCTIONS OF NOSTALGIA

In our research, we established five nostalgia functions. These are (1) elevating positive affect, (2) boosting self-regard, (3) providing a sense of meaning, (4) fostering self-continuity, and (5) strengthening relational bonds and perceptions of social support. We highlight these functions below. In a subsequent section, we will discuss how these functions can aid coping with acculturative stress.

Elevating positive affect. We proposed (Sedikides et al., 2004) that nostalgia is a reservoir of positive affect. We carried out two studies among British undergraduates to test this proposition. In one study (Wildschut et al., 2006, Study 5), participants brought to mind either a nostalgic or ordinary event, and then wrote four relevant keywords capturing the experience. Next, they indicated the extent to which they felt “content” and “happy.” Nostalgic participants reported feeling more

content and happy than control participants. In another study (Wildschut et al., 2006, Study 6), participants in the nostalgia condition were provided with the dictionary definition of the construct and were then asked to spend a few minutes writing about a nostalgic event in their life. Participants in the control condition wrote about an ordinary event in their life. Next, all participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Nostalgic participants reported more positive (but not more negative) affect than control participants. In all, nostalgia is a pathway through which people generate positive affect.

Boosting self-regard. We (Sedikides et al., 2004) also proposed that nostalgia boosts self-regard. We initially tested this proposition in two studies. In Wildschut et al. (2006, Study 5), nostalgic and control participants indicated the extent to which they felt "significant" and had "high self-esteem." In Wildschut et al. (Study 6), nostalgic and control participants completed a measure of self-esteem, the Rosenberg Self-Esteem Scale (Rosenberg, 1965). In both studies, nostalgic participants reported higher levels of self-regard than their counterparts. More recently, we found direct evidence that nostalgia enhances the positivity of implicit self-associations and, in providing such resources, allows people to face threats to self-esteem with reduced defensiveness (Vess, Arndt, Routledge, Sedikides, & Wildschut, 2008). Specifically, Study 1 of this research used a standard technique of assessing, outside of a person's conscious awareness, how quickly they associate themselves with positive characteristics. Participants who engaged in nostalgia did so more quickly than participants who thought about a positive event in the future. In Study 2, participants who were given the opportunity to engage in nostalgia showed a reduced self-serving attribution bias after receiving negative performance feedback. Such a biased tendency to take credit for success but deflect responsibility for failure has been well established as a mechanism for maintaining self-esteem (Weary, 1978). These findings suggest that nostalgia helped to maintain self-esteem in the face of negative feedback, thus obviating the need to make self-serving attributions. Thus, in all, nostalgia is a benign mechanism through which people attain positive self-regard.

Providing a sense of meaning. Moreover, we (Sedikides et al., 2004; Sedikides, Wildschut, Arndt, & Routledge, 2006) proposed that nostalgia imbues life with meaning. This proposition received empirical backing in several studies, using samples of American and British undergraduates (Routledge, Arndt, Sedikides, Wildschut et al., 2008). The more participants perceived the present as meaningless, the more they longed nostalgically for the past (Studies 1 & 2). In addition, an experimental induction of nostalgia resulted in higher perceptions of meaning (Studies 3 & 4). An experimental induction of nostalgia also decreased defensiveness against a threat to meaning (i.e., an essay ostensibly written by an authority and advocating that life is meaningless; Study 5).

Another line of research further demonstrated a meaning function by showing that nostalgia facilitates coping with existential threat by buffering the effects of mortality salience (Routledge, Arndt, Sedikides, & Wildschut, 2008). Following reminders of their mortality, a condition that motivates efforts to affirm a sense of meaning in life (versus reminders of an aversive dental procedure), the more nostalgic participants felt, the more meaningful they perceived their life to be (Study 1). Several studies have demonstrated that the psychological structures that provide meaning reduce the accessibility of death-related thoughts after mortality is made salient (Arndt, Cook, & Routledge, 2004). Consistent with such findings, in our studies, following mortality reminders (versus dental procedure reminders), nostalgia-prone participants (Study 2) or those who had been subjected to an experimental induction of nostalgia (Study 3) expressed fewer death-related thoughts. In all, nostalgia enhanced perceptions of life as meaningful and assuaged existential fear.

Fostering self-continuity. We (Sedikides, Wildschut, Gaertner, Routledge, & Arndt, 2008) further proposed that nostalgia fosters perceptions of self-continuity between past and present. We (Sedikides, Wildschut, Routledge, Arndt, & Gaertner, 2008) obtained support for this proposition in five studies, using samples of British and American undergraduates. Nostalgia was positively associated with the need for continuity in one's life (Study 1). Also, induced reflection about a nostalgic event (in a manner identical to that of Wildschut et al., 2006, Study 5) led to higher perceptions of continuity in one's life compared to induced reflection about an ordinary event (Study 2) or

about an autobiographical memory event (Study 3). Furthermore, actual discontinuity in one's life (e.g., disrupting events such as relocation, divorce, or new employment) was positively associated with proclivity toward nostalgic engagement (Study 4). The final study established that the cause of a nostalgic state is negative discontinuity (where being cut off from one's past was described as painful and disintegrating) rather than positive discontinuity (where being cut off from one's past was described as pleasant and opportunistic) or neutral discontinuity (where being cut off from one's past was described as inconsequential) (Study 5). In all, nostalgia fosters perceptions of self-continuity, and it is also deployed to ward off perceptions of self-discontinuity.

Strengthening relational bonds and perceptions of social support. Finally, we (Sedikides et al., 2004) proposed that nostalgia strengthens relational, or belongingness, bonds. We tested this proposition in three studies. In Wildschut et al. (2006, Study 5), nostalgic and control participants stated the extent to which they felt "protected" and "loved." In Wildschut et al. (Study 6), nostalgic and control participants completed the Revised Experiences in Close Relationships Scale (Fraley, Waller, & Brennan, 2000), which assesses attachment anxiety (e.g., "I worry that romantic partners won't care about me as much as I care about them") and attachment avoidance (e.g., "I am very uncomfortable with being close to romantic partners"). Finally, in Wildschut et al. (2006, Study 7), nostalgic and control participants completed three subscales of the Interpersonal Competence Questionnaire (Buhrmeister, Furman, Wittenberg, & Reis, 1988), assessing the social skills of initiating interactions, self-disclosing, and providing emotional support. In all three studies, nostalgia strengthened relational bonds. Nostalgic participants reported feeling more protected and loved, reported reduced attachment anxiety and attachment avoidance, and reported being more likely to initiate interactions, self-disclose, and provide emotional support to others.

A marker of good interpersonal relationships is the availability of social support from members of one's attachment network (House, Umberson, & Landis, 1988; Sarason, Sarason, & Pierce, 1990). Does nostalgia strengthen perceptions of received social support? We addressed this question in sample of Chinese undergraduates (Zhou et al., in press, Study 3). We induced nostalgia in the same manner as in Wildschut et al. (2006, Study 5), and we then assessed subjective perceptions of social support. Compared to their control counterparts, nostalgic participants perceived higher levels of social support and also listed a greater number of persons who would be willing to help them in times of need. Indeed, nostalgia strengthens perceptions of social support.

NOSTALGIA AS A COPING AID IN ALLEVIATING ACCULTURATIVE STRESS AND FACILITATING ADAPTATION

The above-mentioned functions of nostalgia are relevant to navigating successfully the challenges encountered during the immigrant experience. In the backdrop of economic disadvantages, cultural obstacles, and social hardships, immigrants are confronted with the ominous task of negotiating two cultures: the society of origin and the society of settlement. This negotiation can result in any of four distinct acculturation patterns (Berry, 1974, 1994). One is *integration*, in which the immigrant wants both to maintain cultural identity and to develop relationships with members of the host culture. Another is *assimilation*, in which the immigrant wants to develop relationships with members of the host culture but not to maintain cultural identity. The third pattern is *separation*, in which the immigrant wants to maintain cultural identity but not develop relationships with host culture members. The final acculturation pattern is *marginalization*, in which the immigrant wants neither to maintain cultural identity nor to develop relationships with host culture members.

Integration is the most favored acculturation pattern among immigrants and also migrants (Berry, Kim, Power, Young, & Bujaki, 1989; Dona & Berry, 1994; Georgas & Papastylianou, 1998; Roccas et al., 2000). Moreover, integration confers the highest levels of psychological health and sociocultural adaptation, followed by assimilation, segregation, and marginalization (Berry, 1997; Berry, Kim, Minde, & Mok, 1987; Liebkind & Jasinskaja-Lahti, 2000; Phinney, Chavira, & Williamson,

1992; for an alternative view, see Rudmin, 2003). Immigrants who endorse the integration strategy may be either high or low on bicultural identity integration, referring to the extent to which ethnic cultural identities and the mainstream culture are perceived as compatible and integrated or incompatible and dissociated (Benet-Martínez & Haritatos, 2005; Benet-Martínez, Lee, & Leu, 2006). Immigrants high on bicultural identity integration show better psychological adjustment (e.g., less stress; reduced loneliness, depression, and anxiety; increased self-esteem and self-efficacy; increased satisfaction with life and happiness) than those low on bicultural identity integration (Chen, Benet-Martínez, & Bond, 2008). Of course, immigrants do not always have the freedom to pursue their acculturation pattern of choice. The acculturation expectations of the receiving society are also relevant (Bourhis, Moise, Perreault, & Senecal, 1997). Indeed, immigrants are more likely to pursue separation and marginalization, and least likely to pursue assimilation, when the receiving society tolerates or favors conditions of discrimination (Barry & Grilo, 2003). In general, immigrants are most likely to select and successfully pursue integration when the receiving society endorses a cultural diversity framework (Berry, 1991).

Evidence (Berry & Sam, 1997; Chen et al., 2008; Hammer, Bennett, & Wiseman, 2003; Hansel, 2005; LaFromboise, Coleman, & Gerton, 1993; Milstein, 2005; Phinney, Cantu, & Kurtz, 1997) suggests that two primary factors constitute the signatures of successful integration strategies: psychological health and interpersonal adequacy. Psychological health refers to the absence of negative affectivity (e.g., bad mood, loneliness) and the presence of positive affectivity (e.g., good mood, self-regard, meaning in life, continuity in life). Interpersonal adequacy refers to good interpersonal relationships, cultural learning, and the reception of social support. We maintain that nostalgia can contribute substantially to successful integration by promoting psychological health and bolstering interpersonal adequacy. Immigrants can draw from their rich repository of nostalgic experiences (e.g., persons, occasions, settings) that used to compose the fabric of daily life in their society of origin. These experiences are likely to be both personally and culturally meaningful. In turn, these experiences will help the immigrant navigate more smoothly the troubled waters of existence in a new society.

NOSTALGIA PROMOTES PSYCHOLOGICAL HEALTH

As illustrated above, nostalgia elevates positive affect. Positive affectivity, in turn, broadens both the scope of an individual's attention and her or his thought-action repertoires (e.g., exploration, savoring, play). These broadened behavioral repertoires can contribute to the building up of intellectual resources (e.g., executive control, cognitive complexity, knowledge) and psychological resources (e.g., optimism, creativity, resilience) (Fredrickson, 1998, 2001).

Also as illustrated above, nostalgia boosts self-regard. Self-regard (or self-esteem) buffers anxiety and predicts psychological health (Pyszcynski, Greenberg, Solomon, Arndt, & Schimel, 2004; Swann, Chang-Schneider, & McClarty, 2007). For example, self-esteem predicts depression (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Roberts, Gotlib, & Kassel, 1996), anxiety (Donnellan et al., 2005), and quality of adult adaptation (Werner & Smith, 1992) over a long period and even when various confounds (e.g., neuroticism, depression; Donnellan et al., 2005) are controlled (Trzesniewski et al., 2006).

Furthermore, we reviewed evidence that nostalgia provides a sense of meaning. Perceptions of meaning in life constitute a marker of healthy psychological functioning. Such perceptions are associated with subjective well-being (King & Napa, 1998), quality of life (Krause, 2007), and successful coping (Debats, Drost, & Hansen, 1995). In addition, perceptions of meaning in life form a buffer against existential anxiety (Solomon, Greenberg, & Pyszcynski, 1991). Conversely, lack of meaning in life is a precursor to depression (Wong, 1998).

Finally, we showed that nostalgia fosters perceptions of self-continuity. Such perceptions have been considered central to self-knowledge and self-stability (James, 1890/1981; Neisser, 1988) and also conducive to creativity, vitality, and self-esteem (Kohut, 1977). More importantly, perceptions

of self-continuity are associated with well-being (Chandler, Lalonde, Sokol, & Hallett, 2003) and with increased control of one's life (Fivush, Bohanek, & Duke, 2008) among adolescents, whereas perceptions of self-discontinuity are associated with anxiety and alienation (Milligan, 2003) as well as with dissociative experiences (Lampinen, Odegard, & Leding, 2004).

In sum, we maintain that by elevating positive affect, boosting self-regard, providing a sense of meaning, and fostering perceptions of continuity, nostalgia promotes psychological health. Better psychological adjustment will further facilitate the lofty task of cultural integration. The relative absence of negative health symptoms (e.g., anxiety, depression, alienation) and the presence of adjustment indicators (e.g., well-being, quality of life, self-esteem, perceptions of control, optimism) are likely to provide the energy and outlook needed to pursue the tasks of daily life, to cope successfully with challenges, to begin endorsing new norms, and to identify with one's group (i.e., high bicultural identity integration; Chen et al., 2008; Tropp & Wright, 2001). In addition, a healthy psychological profile is more likely to be associated with social acceptance and inclusion (Abrams, Hogg, & Marques, 2005; Sedikides & Skowronski, 2000).

We (Stephan, Wildschut, Sedikides, Routledge, & Arndt, 2008) have provided some evidence in support of the point that nostalgia has energizing or motivational consequences. In Study 1, nostalgia was positively correlated with the frequency and intensity of inspiration. In Study 2, an experimental induction of nostalgia resulted in increases in inspiration. Importantly, in Study 3, the effect of nostalgia on inspiration was mediated by positive affect and self-esteem. Nostalgia, then, inspires, and it does so through positive affect and high self-esteem.

NOSTALGIA BOLSTERS INTERPERSONAL ADEQUACY

Nostalgia bolsters interpersonal adequacy indirectly. Nostalgia may do so by elevating positive affect, boosting self-regard, providing a sense of meaning, and fostering self-continuity. First, we argued above that positive affect, through a broadening of behavioral repertoires (Fredrickson, 1998, 2001), builds intellectual and psychological resources. In addition, positive affect builds social resources such as friendships and social support (Waugh & Fredrickson, 2006). Second, we argued that self-esteem predicts psychological outcomes. It also predicts social outcomes. For example, low self-esteem measured at Time 1 is associated with antisocial behavior and delinquency problems (i.e., criminal convictions, school dropout, money and work difficulties, tobacco dependence) measured at Time 2 (Trzesniewski et al., 2006). Third, we argued that a sense of meaning in life is a marker of healthy psychological functioning. It is also a marker of healthy interpersonal functioning. Lack of meaning, for example, is associated with maladaptive or self-defeating behaviors such as excessive drinking (Waisberg & Porter, 1994), drug abuse (Padelford, 1974), and even suicide (Marsh, Smith, Piek, & Saunders, 2003). Finally, we argued that self-continuity is positively related to psychological health. It may be negatively related to antisocial behavior and social adjustment, as low levels of self-continuity are linked to group schism and even suicide (Chandler et al., 2003; Sani, 2005). Clearly, these positive social behaviors are likely to enable integration, whereas negative social behaviors are likely to impede it.

Importantly, nostalgia bolsters interpersonal adequacy directly. We illustrated that nostalgia increases relational bonds and perceptions of social support and, in so doing, soothes and reinforces the security of the attachment system. Secure attachment is associated with, or leads to, forbearance of aversive social feedback (Kumashiro & Sedikides, 2005), cognitive openness (Green-Hennessy & Reis, 1998), and an exploratory orientation (Green & Campbell, 2000). Shrugging off negativity, being open to new experiences, and adopting an exploratory orientation are all conducive to the pursuit and formation of new relationships with members of the receiving society, thus facilitating integration (Pettigrew & Tropp, 2006; Ward & Rzoska, 1994). Relatedly, in the Stephan et al. (2008) research mentioned above, the effect of nostalgia on inspiration was also mediated by a strengthening of affiliative bonds (Study 3).

We wondered what might be the specific mechanisms through which nostalgia contributes to interpersonal adequacy. Loneliness, a prototypical immigrant experience (Berry, 2006; Beiser et al., 1993), spontaneously instigates nostalgia (Wildschut et al., 2006, Study 4). But can nostalgia serve a coping function? We (Zhou et al., *in press*) addressed this question in four studies, testing Chinese children, university students, and factory workers. We found that loneliness is associated with, or triggers, perceptions of lack of social support (Studies 1, 2, 4). At the same time, as we have previously noted, loneliness is associated with, or triggers, nostalgia (Studies 1, 2, 4). Interestingly, nostalgia is associated with, or triggers, perceptions of social support (Studies 1-4). This complex (i.e., statistical suppression) pattern can be simplified as follows: although loneliness directly reduces perceptions of social support, it indirectly increases such perceptions through nostalgia. Stated otherwise, nostalgia magnifies perceptions of social support, thus counteracting the effect of loneliness. Nostalgia buffers the impact of loneliness on social support and, in so doing, establishes psychological equanimity.

CAVEATS AND IMPLICATIONS

Immigration is becoming increasingly prevalent and a worldwide phenomenon. In their attempts for integration in their host society, immigrants face economic obstacles, cultural barriers, and social hardships (i.e., stereotyping, prejudice, and discrimination). An ensuing psychological consequence of these adversities is acculturative stress, which entails negative affectivity (e.g., bad mood, loneliness, anxiety, depression).

We argued that nostalgia constitutes a resource in coping with acculturative stress. Nostalgia alleviates acculturative stress by elevating positive affect, boosting self-regard, providing a sense of meaning, fostering self-continuity, and strengthening relational bonds as well as perceptions of social support. In so doing, nostalgia promotes psychological health and bolsters interpersonal adequacy, both of which are key ingredients to successful integration.

We would like to consider a few caveats and implications pertinent to our reported findings and claims. Arguably, nostalgia can be thought of as providing indulgence and comfort rather than a permanent solution to acculturation problems. From this viewpoint, nostalgia is an “aspirin,” treating the symptoms of acculturative stress rather than its causes. Nostalgia is an ephemeral state rather than a way of being. This argument, though, can be countered on two grounds. First, nostalgia can be evoked quite frequently, and (as we have already mentioned) it has reportedly been evoked at least once a week in 79 percent of a nonimmigrant sample (Wildschut et al., 2006, Study 2). Thus, nostalgia can have cumulative remedial effects on stress. Second, and more importantly, dispositional nostalgia has been found to be associated with nostalgia functions (Routledge, Wildschut, Sedikides, Amdt, Rilthie, & Blankchart, 2008). For example, individuals who are dispositionally high on nostalgia also derive more positive mood, self-regard, sense of meaning in life, and relatedness from engaging in nostalgic reverie. Hence, nostalgia can be a potent state and trait antidote against acculturative stress.

Of course, too much of a good thing can be a bad thing. Waxing nostalgic repeatedly over the course of the day can be an unhealthy response to acculturative stress. Such a pattern may keep an immigrant tethered to his or her culture and may thus foster separation rather than integration. This might be apt to occur when the nostalgic reflection loses its focus on the people, settings, and occasions of one’s original culture and instead dwells only on the place of origin. In this case, feelings of homesickness may be more likely to emerge. In addition, under certain conditions or for certain people, it is also possible that nostalgia can invoke a contrast effect between the glories of the past relative to the comparative despair of the present (or future), leading to a restriction in its palliative benefits. Although we have not observed such contrast effects in our studies to date, this is certainly an important topic for future research. In either case, though, it stands to reason that one would need to deploy nostalgia strategically and in moderation, reaping the benefits of the host culture and using it as a springboard for a new beginning. In all, nostalgia would need to be one of several means of

combating acculturative stress. To be sure, the capacity of nostalgia to serve as a springboard for future engagement versus a shackling to the past that constricts future engagement is an important direction for future research. Studying immigrant populations might be a particularly useful way to explore such issues.

We referred to immigrant acculturation as a unitary process. Theorizing, however, has suggested that acculturation is a process consisting of four stages: euphoria, crisis, recovery, and equilibrium. The temporal variation of these stages is unclear, and several permutations have been proposed, with the available evidence being inconclusive (Adler, 1975; Gullahorn & Gullahorn, 1963; Lysgaard, 1955; Oberg, 1960; Ward et al., 2001; Ward & Kennedy, 1996). Regardless, future research would need to find out at which acculturation stage is nostalgia a most potent aid in coping with acculturative stress.

We have concentrated on the potential of nostalgia to contribute to a successful acculturation pattern, which we identified as integration. As we have discussed, however, acculturation patterns also include assimilation, segregation, and marginalization. Can nostalgia also facilitate the transition from assimilation, segregation, or marginalization to integration? At the very least, can nostalgia lessen the impact of acculturative stress among immigrants who already manifest an assimilation, segregation, or marginalization pattern? These are certainly questions worthy of empirical attention.

Nostalgia constitutes an individual integration strategy for coping with social hardships. Such strategies are concerned primarily with personal mobility. In contrast, collective strategies are primarily concerned with the maintenance of cultural heritage, and they include reliance upon the support of the immigrant cultural organizations and the broader immigrant community for collective gains. There is evidence that immigrants prefer collective over individual strategies (Lalonde & Cameron, 1993). Also, those who adopt collective strategies are more willing to remain in the host country and have stronger beliefs in the fairness of the institutions of the host country (Moghaddam, Taylor, & Lalonde, 1987). At the same time, those who adopt collective strategies report higher levels of group (versus personal) discrimination (Moghaddam & Perreault, 1991). Regardless, there are seemingly good reasons to adopt collective integration strategies. However, such strategies are not incompatible with individual ones. A person concerned with the maintenance of cultural heritage and social advancement can also be concerned with psychological health, interpersonal adequacy, and personal mobility. There is clearly a place for nostalgia in the arsenal of an immigrant's integration strategies. Indeed, it may be useful to consider how the more individual strategy of nostalgia could be integrated with a collective orientation. Finding shared cultural memories among the immigrant community that embrace the culture heritage, for example, may enable an individual to reap the benefits of both approaches.

We have argued that nostalgia is a psychological asset for the immigrant. It is possible, however, that individuals high in dispositional nostalgia are more likely to become immigrants. Nostalgia-prone persons may be particularly adept at using nostalgia as a "portable" repository of social support, which they can take with them on their travels. Future research will need to test this proposition.

In this chapter, we focused on obstacles faced by immigrants. A more complete picture of the immigration experience would also emphasize positivity and agency: opportunities, growth, choices, and accomplishments (Berry 2003; Higgins, 1998; Pyszczynski, Greenberg, & Goldenberg, 2003). Whether immigrants will encounter or orient themselves toward defending against threat versus embracing challenge will depend on several factors such as the motives for migration, the political conditions in the host society, the cultural differences or similarities between the sending and receiving societies, and the immigrant's dispositional qualities (Berry, 2003).

Although the literature in this area is somewhat limited, findings have begun to identify traits that are conducive to successful acculturation (i.e., integration). One is an external self-orientation: those with an excessive self-orientation and cultural awareness are prone to depression (Furnham & Bochner, 1986). Other traits include (high) self-esteem (Valentine, 2001), an internal locus of control (Ward, Chang, & Lopez-Nerney, 1999), as well as extraversion, agreeableness, conscientiousness, and low neuroticism (Ward, Leong, & Low, 2004). Motivation is also relevant. Individuals high

on achievement and power motivation but low on affiliation motivation (Boneva & Hanzon Frieze, 2001), as well as individuals high on preservation (i.e., psychological, social, and physical security), self-development (i.e., desire for growth in skills), and materialism (i.e., concern with financial well-being) (Tartakovsky & Schwartz, 2001), make relatively more successful immigrants.

Another trait that has received ample empirical attention is resilience, defined as the capacity to resist being affected by (or to recover from) disturbance, insult, or shock (Rutter, 1987). In the face of a traumatic event, resilient persons go through an initial period of distress but then show a “stable trajectory of healthy functioning across time” (Bonanno, 2005, p. 136). We (Zhou et al., in press, Study 4) found that resilience moderated the association between loneliness and nostalgia. Both resilient and nonresilient participants (i.e., Chinese factory workers) derived social support from nostalgia. However, only resilient participants actively recruited nostalgia to counteract loneliness. Extrapolating from these findings to argue that resilient immigrants will acculturate better than nonresilient ones may not be a mere leap of faith: The adaptive value of resilience has been demonstrated in a variety of immigrant and refugee settings (Ehrensaft & Tousignant, 2006).

In summary, we highlighted in this chapter the potential of nostalgia as a resource in coping with and alleviating acculturative stress. Nostalgia should be considered an asset, not a liability, in the acculturation process, as it is likely to facilitate integration. We hope that we have laid the foundation for more research on how nostalgia serves to benefit cultural adaptation, under what conditions, and for whom.

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REFERENCES

- Abrams, D., Hogg, M. A., & Marques, J. M. (Eds.). (2005). *The social psychology of exclusion and inclusion*. New York: Psychology Press.
- Adler, P. S. (1975). The transitional experience: An alternative view of culture shock. *Journal of Humanistic Psychology, 15*, 13–23.
- Arndt, J., Cook, A., & Routledge, C. (2004). The blueprint of terror management: Understanding the cognitive architecture of psychological defense against death-related thought. In S. Koole, T. Pyszczynski, & J. Greenberg (Eds.), *Handbook of experimental existential psychology* (pp. 35–53). New York: Guilford.
- Barry, D. T., & Grilo, C. M. (2003). Cultural, self-esteem and demographic correlates of perception of personal and group discrimination among East Asian immigrants. *American Journal of Orthopsychiatry, 73*, 223–229.
- Batcho, K. I. (1995). Nostalgia: A psychological perspective. *Perceptual and Motor Skills, 80*, 131–143.
- Beiser, M., Johnson, P., & Turner, J. (1993). Unemployment, underemployment and depressive affect among Southeast Asian refugees. *Psychological Medicine, 23*, 731–743.
- Benet-Martínez, V., & Haritatos, J. (2005). Bicultural identity integration (BII): Components and psychological antecedents. *Journal of Personality, 73*, 1015–1050.
- Benet-Martínez, V., Lee, F., & Leu, J. (2006). Bicultural and cognitive complexity: Expertise in cultural representations. *Journal of Cross-Cultural Psychology, 37*, 386–407.
- Berry, J. W. (1970). Marginality, stress and ethnic identification in an acculturated Aboriginal community. *Journal of Cross-Cultural Psychology, 1*, 239–252.
- Berry, J. W. (1974). Psychological aspects of cultural pluralism. *Topics in Culture Learning, 2*, 17–22.
- Berry, J. W. (1991). Understanding and managing multiculturalism. *Journal of Psychology and Developing Societies, 3*, 17–49.
- Berry, J. W. (1994). Acculturation and psychological adaptation. In A.-M. Bouvy, F. J. R. van de Vijver, P. Bolski, & P. Schmitz (Eds.), *Journeys into cross-cultural psychology* (pp. 129–141). Lisse, Netherlands: Swets & Zeitlinger.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review, 46*, 5–68.

- Berry, J. W. (2003). Conceptual approaches to acculturation. In K. Chun, P. Balls-Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement and applied research* (pp. 17–37). Washington, DC: American Psychological Association Press.
- Berry, J. W. (2006). Stress perspectives on acculturation. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 43–57). Cambridge, UK: Cambridge University Press.
- Berry, J. W., & Kalin, R. (1995). Multicultural and ethnic attitudes in Canada. *Canadian Journal of Behavioral Science*, 27, 301–320.
- Berry, J. W., Kalin, R., & Taylor, D. M. (1977). *Multiculturalism and ethnic attitudes in Canada*. Ottawa, ON: Minister of Supply and Services.
- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 21, 491–511.
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review*, 38, 185–206.
- Berry, J. W., & Sam, D. (1997). Acculturation and adaptation. In J. W. Berry, M. H. Segal, & C. Kağıtçibaşı (Eds.), *Handbook of cross-cultural psychology: Social behavior and adaptation* (Vol. 3, pp. 291–326). Boston: Allyn & Bacon.
- Bonanno, G. A. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science*, 14, 135–138.
- Boneva, B. S., & Hanzon Frieze, I. (2001). Toward a concept of a migrant personality. *Journal of Social Issues*, 57, 477–491.
- Bourhis, R. Y., Moise, C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International Journal of Psychology*, 32, 369–386.
- Brewin, C. R., Furnham, A., & Howes, M. (1989). Demographic and psychological determinants of homesickness and confiding among students. *British Journal of Psychology*, 80, 467–477.
- Brown, A. D., & Humphreys, M. (2002). Nostalgia and the narrativization of identity: A Turkish case study. *British Journal of Management*, 13, 141–159.
- Buhrmeister, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology*, 55, 991–1108.
- Campbell, D. T. (1965). Ethnocentric and other altruistic motives. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 13, pp. 283–311). Lincoln: University of Nebraska Press.
- Chandler, M. J., Lalonde, C. E., Sokol, B., & Hallett, D. (2003). Personal persistence, identity development, and suicide: A study of Native and non-Native North American adolescents. *Monographs of the Society for Research in Child Development*, 68(2) (Serial No. 273).
- Chen, S., X., Benet-Martínez, V., & Bond, M. H. (2008). Bicultural identity, bilingualism, and psychological adjustment in multicultural societies: Immigration-based and globalization-based acculturation. *Journal of Personality*, 67, 803–837.
- Davis, F. (1979). *Yearning for yesterday: A sociology of nostalgia*. New York: Free Press.
- Davis, J. A., & Smith, T. W. (1994). *General social surveys, 1972–1994: Cumulative codebook*. Chicago: National Opinion Research Center.
- Deaux, K. (2006). *To be an immigrant*. New York: Russell Sage Foundation.
- Debats, D. L., Drost, J., & Hansen, P. (1995). Experiences of meaning in life: A combined qualitative and quantitative approach. *British Journal of Psychology*, 86, 359–375.
- Dona, G., & Berry, J. W. (1994). Acculturation attitudes and acculturative stress of Central American refugees. *International Journal of Psychology*, 29, 57–70.
- Donnellan, B., Trzesniewski, K., Robins, R., Moffitt, T., & Caspi, A. (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. *Psychological Science*, 16, 328–335.
- Dovidio, J. F., & Gaertner, S. L. (2004). Aversive racism. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 36, pp. 1–51). San Diego, CA: Academic Press.
- Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, 82, 62–68.
- Dunbar, E. (1992). Adjustment and satisfaction of expatriate US personnel. *International Journal of Intercultural Relations*, 16, 1–16.
- Ehrensaft, E., & Tousignant, M. (2006). Immigration and resilience. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 469–483). Cambridge, UK: Cambridge University Press.
- Espenshade, T. J., & Hempstead, K. (1996). Contemporary American attitudes toward U.S. immigration. *International Migration Review*, 30, 535–570.

- Esses, V. M., Dovidio, J. F., Jackson, L. M., & Armstrong, T. L. (2001). The immigration dilemma: The role of perceived group competition, ethnic prejudice, and national identity. *Journal of Social Issues*, 57, 389–412.
- Esses, V. M., Jackson, L. M., & Armstrong, T. L. (1998). Intergroup competition and attitudes toward immigrants and immigration: An instrumental model of group conflict. *Journal of Social Issues*, 54, 699–724.
- Esses, V. M., Jackson, L. M., Nolan, J. M., & Armstrong, T. L. (1999). Economic threat and attitudes toward immigrants. In S. Halli & L. Drieger (Eds.), *Immigrant Canada: Demographic, economic and social challenges* (pp. 212–229). Toronto, ON: University of Toronto Press.
- Fisher, S., Frazer, N., & Murray, K. (1984). The transition from home to boarding school: A diary-style analysis of the problems and worries of boarding school pupils. *Journal of Environmental Psychology*, 4, 211–221.
- Fisher, S., & Hood, B. (1987). The stress of the transition to university: A longitudinal study of psychological disturbance, absent-mindedness and vulnerability to homesickness. *British Journal of Psychology*, 78, 425–441.
- Fivush, R., Bohanek, J., & Duke, M. (2008). The intergenerational self: Subjective perspectives and family history. In F. Sani (Ed.), *Individual and collective self-continuity: Psychological perspectives* (pp. 131–144). New York: Psychology Press.
- Foner, N. (1979). West Indians in New York City and London: A comparative analysis. *International Migration Review*, 13, 284–297.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350–365.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.
- Furnham, A., & Bochner, S. (1986). *Culture shock: Psychological reactions to unfamiliar environments*. London: Methuen.
- Georgas, J., & Papastylianou, D. (1998). Acculturation and ethnic identity: The remigration of ethnic Greeks to Greece. In H. Grad, A. Blanco, & J. Georgas (Eds.), *Key issues in cross-cultural psychology* (pp. 114–127). Lisse, Netherlands: Swets & Zeitlinger.
- Green, J. D., & Campbell, W. K. (2000). Attachment and exploration in adults: Chronic and contextual accessibility. *Personality and Social Psychology Bulletin*, 26, 452–461.
- Green-Hennessy, S., & Reis, H. T. (1998). Openness in processing social information among attachment types. *Personal Relationships*, 5, 449–466.
- Greenhouse, S. (2005, January 12). Two restaurants to pay workers \$164,000. *The New York Times*, p. B3.
- Gullahorn, J. T., & Gullahorn, J. E. (1963). An extension of the U-curve hypothesis. *Journal of Social Issues*, 19, 33–47.
- Hagendoorn, L. (1993). Ethnic categorisation and outgroup exclusion. *Ethnic and Racial Studies*, 16, 26–51.
- Hammer, M. R., Bennett, M. J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations*, 27, 421–443.
- Hansel, B. (2005). *The education results study: The AFS internal descriptive report of the complete findings*. New York: AFS International.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1–46). New York: Academic Press.
- House, J., Umberson, D. J., & Landis, K. (1988). Structures and processes of social support. *Annual Review of Sociology*, 14, 293–318.
- Jackson, L. M., & Esses, V. M. (2000). Effects of perceived economic competition on people's willingness to help empower immigrants. *Group Processes and Intergroup Relations*, 3, 419–435.
- James, W. (1890/1981). *The principles of psychology*. Cambridge, MA: Harvard University Press.
- Javier, F. (2004, November 21). This city is a monster. *The New York Times*, p. CY6.
- Johnson, J. H., Farrell, W. C., & Quinn, C. (1997). Immigration reform and the browning of America: Tensions, conflicts and community instability in metropolitan Los Angeles. *International Migration Review*, 31, 1055–1095.
- Kim, U. (1988). *Acculturation of Korean immigrants to Canada*. Unpublished doctoral dissertation. Queen's University, Kingston, ON.
- King, L. A., & Napa, C. K. (1998). What makes a life good? *Journal of Personality and Social Psychology*, 75, 156–165.

- Kosic, A., Kruglanski, A. W., Pierro, A., & Mannetti, L. (2004). The social cognition of immigrants' acculturation: Effects of the need for closure and reference group at entry. *Journal of Personality and Social Psychology, 86*, 796–813.
- Krause, N. (2007). Evaluating the stress-buffering function of meaning in life among older people. *Journal of Aging and Health, 19*, 792–812.
- Kumashiro, M., & Sedikides, C. (2005). Taking on board liability-focused feedback: Close positive relationships as a self-bolstering resource. *Psychological Science, 16*, 732–739.
- LaFromboise, T., Coleman, H. L. K., & Gerton, K. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin, 114*, 395–412.
- Lalonde, R., & Cameron, J. (1993). An intergroup perspective on immigrant acculturation with a focus on collective strategies. *International Journal of Psychology, 28*, 57–74.
- Lampinen, J. M., Odegard, T. N., & Leding, J. K. (2004). Diachronic disunity. In D. R. Beike, J. M. Lampinen, & D. A. Behrend (Eds.), *The self in memory* (pp. 227–253). New York: Psychology Press.
- Liebkind, K., & Jasinskaja-Lahti, I. (2000). The influence of experiences of discrimination on psychological stress: A comparison of seven immigrant groups. *Journal of Community, Applied Social Psychology, 10*, 1–16.
- Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Full bright grantees visiting the United States. *International Social Science Bulletin, 7*, 45–51.
- Marsh, A., Smith, L., Piek, J., & Saunders, B. (2003). The purpose in life scale: Psychometric properties for social drinkers and drinkers in alcohol treatment. *Educational and Psychological Measurement, 63*, 859–871.
- McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology, 5*, 100–122.
- Milligan, M. J. (2003). Displacement and identity discontinuity: The role of nostalgia in establishing new identity categories. *Symbolic Interaction, 26*, 381–278.
- Milstein, T. (2005). Transformation abroad: Sojourning and the perceived enhancement of self-efficacy. *International Journal of Intercultural Relations, 29*, 217–238.
- Mizrahi, K. (2005). *Americans' attitudes toward immigration and immigrants*. Unpublished PhD dissertation. CUNY, Graduate Center, New York.
- Moghaddam, F. M., & Perreault, S. (1991). Individual and collective mobility strategies among minority group members. *Journal of Social Psychology, 132*, 343–357.
- Moghaddam, F. M., Taylor, D., & Lalonde, R. (1987). Individualistic and collectivistic integration strategies among Iranians in Canada. *International Journal of Psychology, 22*, 301–313.
- Mullen, B. (2001). Ethnophaulisms for ethnic immigrant groups. *Journal of Social Issues, 57*, 457–475.
- Murphy, H. B. M. (1965). Migration and the major mental disorders. In M. Kantor (Ed.), *Mobility and mental health* (pp. 221–249). Springfield, MO: Thomas.
- Neisser, U. (1988). Five kinds of self-knowledge. *Philosophical Psychology, 1*, 35–58.
- Noh, S., Beiser, M., Kaspar, V., Hou, F., & Rummens, J. (1999). Perceived racial discrimination, depression and coping: A study of Southeast Asian refugees in Canada. *Journal of Health and Social Behavior, 40*, 193–207.
- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology, 7*, 177–182.
- Open Doors. (1996/1997). *Report on international education exchange*. New York: Institute of International Education.
- Padelford, B. (1974). Relationship between drug involvement and purpose in life. *Journal of Clinical Psychology, 30*, 303–305.
- Palmer, D. L. (1996). Determinants of Canadian attitudes toward immigration: more than just racism? *Canadian Journal of Behavioral Science, 28*, 180–192.
- Pettigrew, T. F. (1997). Personality and social structure: Social psychological contributions. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 417–438). San Diego, CA: Academic Press.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49*, 65–85.
- Pettigrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in Western Europe. *European Journal of Social Psychology, 25*, 57–75.
- Pettigrew, T., & Tropp, L. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751–783.

- Phinney, J. S., Cantu, C. L., & Kurtz, D. A. (1997). Ethnic and American identity as predictors of self-esteem among African American, Latino, and White adolescents. *Journal of Youth and Adolescence*, 26, 165–185.
- Phinney, J. S., Chavira, V., & Williamson, L. (1992). Acculturation attitudes and self-esteem among high school and college students. *Youth and Society*, 23, 299–312.
- Pratto, F., & Lemieux, A. (2001). The psychological ambiguity of immigration and its implications for promoting immigration policy. *Journal of Social Issues*, 57, 413–427.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67, 741–763.
- Pyszcynski, T., Greenberg, J., & Goldenberg, J. L. (2003). Freedom versus fear: On the defense, growth, and expansion of the self. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 314–343). New York: Guilford Press.
- Pyszcynski, T., Greenberg, J., Solomon, S., Arndt, J., & Schimel, J. (2004). Why do people need self-esteem? A theoretical and empirical review. *Psychological Bulletin*, 130, 435–468.
- Quillian, L. (1995). Prejudice as a group threat: Population composition and anti-immigrant and racial prejudice in Europe. *American Sociological Review*, 60, 586–611.
- Richmond, A. (1993). Reactive migration: Sociological perspectives on refugee movements. *Journal of Refugee Studies*, 6, 7–24.
- Roberts, J. E., Gotlib, I. H., & Kassel, J. D. (1996). Adult attachment security and symptoms of depression: The mediating role of dysfunctional attitudes and low self-esteem. *Journal of Personality and Social Psychology*, 70, 310–320.
- Roccas, S., Horenczyk, G., & Schwartz, S. H. (2000). Acculturation discrepancies and well-being: The moderating role of conformity. *European Journal of Social Psychology*, 30, 323–334.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rothmann, A., Piontkowski, U., & van Randenborgh, A. (2008). When attitudes do not fit: Discordance of acculturation attitudes as an antecedent of intergroup threat. *Personality and Social Psychology Bulletin*, 34, 337–352.
- Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2008). A blast from the past: The terror management function of nostalgia. *Journal of Experimental Social Psychology*, 44, 132–140.
- Routledge, C., Arndt, J., Sedikides, C., Wildschut, T., Arnold, M., & Hart, C. M. (2008). *The past is an existential resource: Nostalgia increases meaning in life*. Unpublished manuscript, North Dakota State University.
- Routledge, C. R., Wildschut, T., Sedikides, C., Arndt, J., Ritchie, T., & Blackhart, J. (2008). Nostalgia proneness and nostalgia functions. Unpublished manuscript, North Dakota State University.
- Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*, 7, 3–37.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316–31.
- Sam, D. L. (2006). Acculturation of immigrant children and women. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 403–418). Cambridge, UK: Cambridge University Press.
- Sani, F. (2005). When subgroups secede: Extending and refining the social psychological model of schism in groups. *Personality and Social Psychology Bulletin*, 31, 1074–1086.
- Sarason, B. R., Sarason, I. G., & Pierce, G. R. (1990). *Social support: An interactional view*. New York: Wiley.
- Sedikides, C., & Skowronski, J. J. (2000). On the evolutionary functions of the symbolic self: The emergence of self-evaluation motives. In A. Tesser, R. Felson, & J. Suls (Eds.), *Psychological perspectives on self and identity* (pp. 91–117). Washington, DC: American Psychological Association Books.
- Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. D. (2006). Affect and the self. In J. P. Forgas (Ed.), *Affect in social thinking and behavior: Frontiers in social psychology* (pp. 197–215). New York: Psychology Press.
- Sedikides, C., Wildschut, T., & Baden, D. (2004). Nostalgia: Conceptual issues and existential functions. In J. Greenberg, S. Koole, & T. Pyszcynski (Eds.), *Handbook of experimental existential psychology* (pp. 200–214). New York: Guilford Press.
- Sedikides, C., Wildschut, T., Gaertner, L., Routledge, C., & Arndt, J. (2008). Nostalgia as enabler of self-continuity. In F. Sani (Ed.), *Self-continuity: Individual and collective perspectives* (pp. 227–239). New York: Psychology Press.
- Sedikides, C., Wildschut, T., Routledge, C., & Arndt, J. (2008). *Nostalgia across the life-span*. Unpublished data, University of Southampton, UK.

- Sedikides, C., Wildschut, T., Routledge, C., Arndt, J., & Gaertner, L. (2008). *Nostalgia and perceptions of self-continuity*. Unpublished manuscript, University of Southampton, UK.
- Simon, L., Arndt, J., Greenberg, J., & Pyszczynski, T., & Solomon, S. (1998). Terror management and meaning: Evidence that the opportunity to defend the worldview in response to mortality salience increases the meaningfulness of life in the mildly depressed. *Journal of Personality*, 66, 359–382.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). A terror management theory of social behavior: The psychological functions of self-esteem and cultural worldviews. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 93–159). New York: Academic Press.
- Stephan, E., Wildschut, T., Sedikides, C., Routledge, C. R., & Arndt, J. (2008). *The magic of the past: Nostalgia inspires*. Unpublished manuscript, University of Southampton, UK.
- Stephan, W. G., & Renfro, C. L. (2002). The role of threat in intergroup relations. In D. M Mackie & E. R. Smith (Eds.), *From prejudice to intergroup emotions* (pp. 191–207). New York: Psychology Press.
- Stephan, W. G., Renfro, C. L., Esses, V. M., Stephan, C. M., & Martin, T. (2005). The effects of feeling threatened on attitudes toward immigrants. *International Journal of Intercultural Relations*, 29, 1–19.
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Claremont symposium on applied social psychology* (pp. 23–46). Hillsdale, NJ: Erlbaum.
- Stephan, W. G., Ybarra, O., Martinez, C., Schwarzwald, J., & Tur-Kaspa, M. (1998). Prejudice toward immigrants to Spain and Israel: An integrated threat theory analysis. *Journal of Cross-Cultural Psychology*, 29, 559–576.
- Stroebe, M., van Vliet, T., Hewstone, M., & Willis, H. (2000). Homesickness among students in two cultures: Antecedents and consequences. *British Journal of Psychology*, 93, 147–168.
- Swann, W. B., Jr., Chang-Schneider, C., & McCloskey, K. L. (2007). Do people's self-views matter? Self-concept and self-esteem in everyday life. *American Psychologist*, 62, 84–94.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–48). Monterey, CA: Brooks/Cole.
- Tartakovsky, E., & Schwartz, S. H. (2001). Motivation for emigration, values, well-being, and identification among young Russian Jews. *International Journal of Psychology*, 36, 88–99.
- Thalhammer, E., Zucha, V., Enzenhofer, E., Salfinger, B., & Ogris, G. (2000). *Attitudes towards minority groups in the European Union: A special analysis of the Eurobarometer 2000 opinion poll on behalf of the European Monitoring Centre on Racism and Xenophobia*. Vienna: SORA.
- The New Oxford Dictionary of English*. (1998). Oxford, UK: Oxford University Press.
- Tropp, L. R., & Wright, S. C. (2001). Ingroup identification as inclusion of ingroup in the self. *Personality and Social Psychology Bulletin*, 27, 585–600.
- Trzesniewski, K., Donnellan, B., Moffitt, T., Robins, R., Poulton, R., & Caspi, A. (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. *Developmental Psychology*, 42, 381–390.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Basil Blackwell.
- United Nations. (2002). *UN population report 2002*. New York: United Nations Statistics Division.
- United Nations. (2006). *Trends in the total migrant stock: The 2005 revision*. United Nations (POP/DB/MIG/Rev.2005), data in digital form.
- United Nations World Tourism Organization. (2006). *Tourism market trends: World overview and tourism topics*. Madrid: World Tourism Organisation.
- United Nations World Tourism Organization. (2008) Facts & Figures. Retrieved January 25, 2008, from <http://unwto.org/facts/menu.html>
- Valentine, S. (2001). Self-esteem, cultural identity, and generation status as determinants of Hispanic acculturation. *Hispanic Journal of Behavioral Sciences*, 23, 459–468.
- van Tilburg, M. A. L., Vingerhoets, A. J. J. M., & van Heck, G. L. (1996). Homesickness: A review of the literature. *Psychological Medicine*, 26, 899–912.
- Vess, M., Arndt, J., Routledge, C., Sedikides, C., & Wildschut, T. (2008). *Nostalgia and self-esteem*. Unpublished data, University of Missouri.
- Volkan, V. D. (1999). Nostalgia as a linking phenomenon. *Journal of Applied Psychoanalytic Studies*, 1, 169–179.
- Waisberg, J., & Porter, J. (1994). Purpose in life and outcome of treatment for alcohol dependence. *British Journal of Clinical Psychology*, 33, 49–63.
- Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock*. East Sussex, UK: Routledge.

- Ward, C., Chang, W., & Lopez-Nerney, S. (1999). Psychological and sociocultural adjustment of Filipina domestic workers in Singapore. In J. C. Lasry, J. Adair, & K. Dion (Eds.), *Latest contributions to cultural psychology* (pp. 118–134). Lisse, Netherlands: Swets & Zeitlinger.
- Ward, C., & Kennedy, A. (1993). Where is the “culture” in cross-cultural transition? Comparative studies of sojourner adjustment. *Journal of Cross-Cultural Psychology*, 24, 221–249.
- Ward, C., & Kennedy, A. (1996). Crossing cultures: The relationship between psychological and socio-cultural dimensions of cross-cultural adjustment. In J. Pandey, D. Sinha, & D. P. S. Bhawuk (Eds.), *Asian contributions to cross-cultural psychology* (pp. 289–306). New Delhi: Sage.
- Ward, C., & Leong, C. H. (2006). Intercultural relations in plural societies. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 485–503). Cambridge, UK: Cambridge University Press.
- Ward, C., Leong, C. H., & Low, M. (2004). Personality and sojourner adjustment: An exploration of the “Big Five” and the “Cultural Fit” proposition. *Journal of Cross-Cultural Psychology*, 35, 137–151.
- Ward, C., & Rzoska, K. (1994). Cross-cultural perspectives on cooperation and competition: Educational applications in plural societies. In E. Thomas (Ed.), *International perspectives on culture and schooling* (pp. 455–482). London: University of London Press.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 55, 1063–1070.
- Waugh, C. E., & Fredrickson, B. L. (2006). Nice to know you: Positive emotions, self-other overlap, and complex understanding in the formation of a new relationship. *The Journal of Positive Psychology*, 1, 93–106.
- Weary, B. G. (1978). Self-serving biases in the attribution process: A reexamination of the fact or fiction question. *Journal of Personality and Social Psychology*, 36, 56–71.
- Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. D. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality and Social Psychology*, 91, 975–993.
- Wildschut, T., Stephan, E., Sedikides, C., Routledge, C., & Arndt, J. (2008, February). *Feeling happy and sad at the same time: Nostalgia informs models of affect*. Paper presented at the 9th Annual Meeting of the Society for Personality and Social Psychology, Albuquerque, NM.
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, 58, 994–1003.
- Zagefka, H., Brown, R., Broquard, M., & Martin, S. L. (2007). Predictors and consequences of negative attitudes toward immigrants in Belgium and Turkey: The role of acculturation preferences in economic competition. *British Journal of Social Psychology*, 46, 153–169.
- Zhou, X., Sedikides, C., Wildschut, T., & Gao, D.-G. (in press). Counteracting loneliness: On the restorative function of nostalgia. *Psychological Science*.

22 Theory, Critical Incidents, and the Preparation of People for Intercultural Experiences

Richard W. Brislin

In this chapter I will be arguing that instead of just sending people off to interact in cultures other than their own and letting them sink or swim, there is a better alternative. Professors, trainers, and human resource specialists who have knowledge concerning people's adjustment to other cultures can offer assistance to sojourners so that they are better prepared to benefit from their intercultural experiences (Cushner & Brislin, 1996). Further, theory in cross-cultural research and cultural psychology (in the rest of the chapter I'll use the phrase *theory in cross-cultural research* for both approaches) can assist both helpers and sojourners in their quest to increase the chances of enriching intercultural experiences. Finally, I will argue that a good way to prepare materials for sojourners is to develop critical incidents that capture experiences that are likely to be common to many sojourners. Common emotional challenges that sojourners often experience will be discussed. Further, the critical incident method can be adapted to serve a number of purposes that cross-cultural researchers have in communicating concepts among themselves, to their students, and to the general public (Brislin, 2008).

My usage of some vocabulary in this chapter is as follows: The term *sojourners* refers to people who live in a culture other the one in which they were socialized. My use of this term also includes both people living overseas and people originally from one part of a large and complex nation who live in a quite different part of the same nation. For example, later in the chapter I refer to the work of Michael Salzman (1991), who developed training materials to help Anglo-Americans adjust to their lives and work on a Navajo reservation in the Southwest U.S. The words *expatriates* or *expats* are often used by others (including those at the site of the conference that led to this volume, Hong Kong), but I don't use them often because they don't convey the important experiences of people who are assigned to quite different cultures within their own country. *Hosts* refers to people who are citizens of the country, or residents of the area to which sojourners travel, and who interact frequently with the sometimes stressed-out sojourners.

THE ROLE OF PERSONAL EXPERIENCES

The origins of my work may be of interest because they reflect what I think is a reasonable conclusion about researchers who become involved in cross-cultural research. Many culture researchers have had a set of personal experiences in other cultures and want to make sense out of them. In my case, when I was 19 years old, my father was offered a job assignment on Guam. At the time I was an atmospheric physics major at the University of Washington (1963–64) and was coming to the conclusion that physics was not my field. One of our texts had been written by Richard Feynman, and I found his well-written and insightful examples more interesting than the points of theoretical physics that he was trying to elucidate. Later, he used this talent in explaining one of the failures that led to the explosion of the space shuttle Challenger in 1986. As part of the hearings into this disaster, he

placed an O-ring in a glass of cold water to show how it expanded, and unfortunately this expansion went beyond the expectations of prelaunch calculations and contributed to the explosion.

So I was at the University of Washington talking to some friends who were liberal arts and psychology majors as I was contemplating a change in my career path. Then I heard from my father about his move to Guam, and he mentioned that there was a college there. I vaguely knew that it would be a good idea to get out of my comfort zone on the mainland U.S. and to undertake this experience in another culture. Contributing reasons may have stemmed from other issues involving intercultural relations: the civil rights movements with its campus demonstrations; support of Caesar Chavez's efforts to unionize migrant laborers, and corresponding pickets of grocery stores that stocked non-union-picked produce; and the early days of the Peace Corps and the optimism surrounding the forward impetus offered by the Kennedy administration.

When I arrived in Guam in the fall of 1964, I was thrown, totally unprepared, into a set of intercultural experiences that were puzzling to me and for which I had no explanations. They challenged my cognitions, emotions, and expectations concerning appropriate everyday behaviors. This was a time when few, if any, materials were available that might help people move across cultures. Cross-cultural research was not a well-developed field with texts, journals, and university coursework. Edward Hall's (1959) important book *The Silent Language* was available but had not reached the status of being handed down from one sojourner to another with the recommendation, "You ought to read this. It has some interesting examples of what might happen to you in the culture where you will be living." Harry Triandis (1972) had not yet published *The Analysis of Subjective Culture*. Concepts such as individualism and collectivism were not widely discussed. Cross-cultural training materials prepared by the Peace Corps had not been widely circulated outside this organization. Further, I am not saying that cross-cultural training in the early days of the Peace Corps was an afterthought; however, I believe that an emphasis on language training and the conviction that Americans and their "know-how" and "gung-ho, can-do attitudes" can overcome obstacles took center stage.

I immediately encountered everyday experiences with classmates from a wide variety of cultures. There were Chamorros from Guam; there were Micronesians from Saipan, Palau (Belau), Kusai (Kosrae), Truk (Chuuk), Yap, and Ponape; there were quite a few students from the Philippines, Japan, and Taiwan; and there were others, like myself, from the mainland U.S.

I began to have experiences that I could not explain. One of the first involved a young lady, recently arrived from the Philippines, who had a car at a time when I did not. She offered to drive a carload of new students around to buy clothes suitable for island wear and to buy basic supplies for college classes. After the trip, I offered to pay for the gasoline she had to use to drive us around. She was quite offended. Over forty years after the experience, I can offer an explanation. She was from the Philippines, a collective society (see chapter by Triandis, this volume). She was offering something akin to in-group membership when she offered to take the group of new students to various shops. It is insulting to turn this offer of communal sharing (a favor for which no immediate return is expected) into a market exchange (kindness for gas money; Fiske, 1991).

ADDING EXPLANATIONS TO EXPERIENCES

With experiences like these, it was hard not to become interested in culture's influence on behavior. I tried to find a graduate school that would be tolerant of such interests (remember, cross-cultural psychology was not a well-developed field) and started at Pennsylvania State University in 1966. Early in my studies there, I read an article by Foa and Chemers (1967) that made a great deal of sense because it reminded me of my prior intercultural experiences. The authors discussed the case of an American working in the Philippines who had developed a friendship with a coworker. The American and the Filipino socialized frequently outside the workplace. One day at work, the Filipino gave a public presentation about his ideas for improving the company. The American raised his hand and made some insightful queries regarding some of the assumptions in the presentation,

which made the Filipino think quickly on his feet. After the presentation, the Filipino cancelled a previous luncheon engagement and was withdrawn at work for the next few weeks. The American could not figure out what was going on.

Foa and Chemers (1967) explained this incident by referring to the concept *role differentiation*. People play different roles in life, and these roles have certain expected behaviors associated with them. Roles include boss, friend, teacher, spouse, police officer, son, daughter, and so forth. Each of these roles carries expectations that certain behaviors will take place, and these behaviors are influenced by the culture in which a person was socialized. In many collectivistic cultures, for example, children are expected to take care of elderly parents. In fact, children are said to be the old age insurance policies for parents. In many individualistic cultures, children do not have this expectation to the same degree. Adults are encouraged by their financial advisers to start savings programs as soon as they start earning salaries. With a good savings program, people can retire when they are approximately 65 years old and do not have to depend on their children, who by then will have financial responsibility for *their* sons and daughters (e.g., college tuition).

In the Foa and Chemers (1967) example, the American and the Filipino had different expectations of the role “friend.” In America a person can socialize with a friend and also can make public suggestions to improve his or her work-related proposals. In fact, the American might say that he would not be a friend to someone if he did not make public suggestions that might contribute to the other’s career development. Further, the American might say that he is giving his friend a chance to “hit a home run” in public by answering tough questions in front of company executives.

In the Philippines, however, the roles of “friend” and “constructive critic” are differentiated. A person can play one role but not the other. Friends do not engage in behaviors that might make someone ill at ease in public. And, if one does make constructive criticisms, this is an acceptable role as long as the person does not expect a friendship to develop. Compromises can be made in the Philippines, as there are always compromises with potential role conflicts (e.g., people being asked to work late on an important project, causing them to miss their children’s dance recital at school). In the Philippines, a person can make constructive suggestions in private, and the suggestions should be made in the context of friendly banter and compliments on some aspects of the proposal, all with careful attention to a pleasant and encouraging tone of voice. This incident and explanation resonated with me. I would have pleasant lunches with Filipino classmates and we would joke and tell stories. When we all went to class, they were extremely sensitive to anything that could be construed as a disagreement that would emanate from my lips.

Critical incidents. At about this same time, I was introduced to the use of critical incidents in industrial psychology (Flanagan, 1954). Critical incidents have been used for the purposes of job description, job training, and decision making about selection and promotion. One question, asked of job incumbents, aims to identify specific behaviors associated with a job that lead to success or failure on the job. The question might take the form, “In this job, what behaviors do the best (or worst) workers demonstrate that contribute to their success (or failure)?” When shortened to just the most key words, critical incidents can lead to the use of Behaviorally Anchored Rating Scales (BARS) for the evaluation of workers during annual performance reviews. To borrow an example from Harvey (1991), a highly rated police officer (seven on a seven-point scale) would arrive early for work, would review activities of the previous shift, and would check the vehicle that will be used during the current shift. A poorly rated police officer (one on a seven-point scale) would be regularly late for roll call, would not check equipment, and would not take notes during roll call. While admittedly expensive to prepare, since there have to be BARS for multiple dimensions of all jobs in a company, the measures have the advantage of high reliabilities across raters and the identification of specific behaviors that need to be improved before the next annual review. Methods of improvement can include plans made through goal-setting sessions, formal training programs, and coaching (Noe, Hollenbeck, Gerhart, & Wright, 2008).

Case studies. Another interesting set of experiences took place in graduate school classes. Professors, rightly, would argue against a dependence on case studies (which might be called

long critical incidents related to a topic) when empirical studies had investigated that same topic with a broad sampling of people and/or multiple experiments had been carried out in different settings. When discussing important points, however, they would often refer to personal experiences in business, clinical, and military settings. They would also involve students in the exploration of personal experiences. For example, in discussing dissonance theory, professors would ask students to imagine themselves personally experiencing a situation that involved making a public statement about a controversial topic when there was minimal external justification (trivial amount of money, returning a favor for an acquaintance rather than for a close friend) for doing so. Clearly, case studies and critical incidents have an important place in the development and communication of research findings.

THE CULTURE ASSIMILATOR

In the late 1960s and early 1970s, a field known as cross-cultural training came into existence. Rather than just sending people off to another country and hoping that they do well, cross-cultural training programs offer formal efforts to assist sojourners in their adjustment and to increase their chances of success on their overseas assignments. There were various pressures and sources of funding for this work. Administrators at the Peace Corps central office in Washington, D.C., were receiving feedback from volunteers that their effectiveness was challenged because they were unprepared to face cultural differences and they experienced culture shock that affected the quality of their work. In a quite different context (perhaps not as noble), the behavior of American troops overseas (Vietnam, Korea, Germany) made obvious that soldiers can create a great deal of ill will if they are ignorant of local customs. Technical assistance advisers under contract from organizations such as the World Bank and the Agency for International Development found that technological expertise was not enough when introducing complex projects in developing countries.

One of the first and best researched cross-cultural training tools was the culture assimilator (Fiedler, Mitchell, & Triandis, 1971). This method was based on the use of critical incidents meant to capture experiences people are likely to have in another specific culture. In addition, Fiedler and his colleagues recognized that people need to explain the unfamiliar experiences they encounter. That is, they need to make attributions about the causes of people's behaviors before, during, and after the experiences. To address this need, Fiedler and his colleagues added to the critical incident method already discussed by including various attributions (four or five of them) that people might make about the incident. Ideally, all of the attributions might be made by reasonable people, but a smaller number of them is correct given the cultural guidelines of people's thinking. Ideally, trainees using the method can come up with the same attributions as hosts in the country in which they are living. These then become isomorphic attributions: the same explanation of an unfamiliar behavior, looked at in a similar manner by both sojourners and hosts.

The culture assimilator method is best understood by looking at an example. In all the examples I will be using throughout the rest of this chapter, I am using incidents that were written relatively recently, partly because some of the old incidents need updating. Some people will use the incidents in this chapter for their own teaching and training, and I want the incidents to be as useful as possible, given that they address current concerns. A second reason is that the reorganization of government agencies that funded relevant research has made it almost impossible to find a person who can give formal permission to reprint cross-cultural training materials from the early 1970s. In writing these incidents, I am also taking advantage of research done in recent years (e.g., Brislin, 2008; Brislin & Yoshida, 1994; Triandis, 1995; Wang, Brislin, Wang, Williams, & Chao, 2000).

Trainees are asked to read the incident and choose one or more alternative explanations. They are told that more than one explanation can help in understanding the reasons for people's behavior in the incident, especially when trainees take into account the viewpoints of different people described in the incident. This incident was adapted from Wang et al. (2000), with special attention

to condensing the original for reasons of space and to be more precise about highlighting key points involving cultural differences.

Many cross-cultural experiences involve possible strong emotional reactions, and these are difficult to introduce in cross-cultural training programs. I believe that the use of critical incidents can cover emotional experiences sojourners typically encounter, and I will draw from typical emotional experiences in all my examples throughout this chapter.

Answers labeled as “correct” were determined by expert panels of businesspeople, international students and their advisers, diplomats, technical assistance advisors, researchers, and educators who have had extensive experience in the cultures described in any one critical incident, or extensive experience with the concepts under discussion in the theoretically oriented incidents to be covered later in the chapter.

Sojourner emotions: The possibility of social rejection. Studying in Shanghai, China, Dan Foster (from Sydney, Australia) had become a study partner with Haiyan Li. He was amused when Haiyan told Dan that her name meant “seagull” in Chinese, but she preferred to think of it as meaning “graceful dove.” Dan and Haiyan set up a series of study sessions, during which Dan helped Haiyan with her English, and Haiyan helped Dan with his Chinese language skills. Dan felt there might be some feelings beyond academic interest. He considered asking Haiyan out to lunch in a nice restaurant. He knew that anything that looks like a “first date” is taken more seriously in China than in his own country, so he waited until he felt that Haiyan was ready for such a social interaction. They set the date and time. The day before the lunch date, Haiyan called Dan and told him that she had to cancel because she had things to do. From a mutual friend, Dan learned that one of Haiyan’s professors wanted to speak to her about her thesis at the time the lunch had been scheduled. Dan did not know how to interpret this change in schedule, and he thought to himself that Haiyan ought to be able to schedule her time so that she could meet with the professor and also meet with him for lunch.

What cultural difference, or set of cultural differences, may help Dan interpret this incident if he knew about them. You can choose more than one alternate.

1. Haiyan was demonstrating, in a way familiar to her, given her Chinese socialization, that she is not interested in pursuing a dating relationship with Dan.
2. Chinese professors are very generous in sharing their time with students, and Haiyan wanted to show her appreciation of this fact by accepting the professor’s invitation.
3. When Chinese professors request a meeting, Chinese students place such a request high on their agenda.
4. Dan felt that when Haiyan cancelled the lunch date without giving a reason, she was not demonstrating good social skills.
5. Dan heard about Haiyan’s reasons for cancelling the lunch date from a mutual friend, but a friend should not tell Dan about Haiyan in Chinese culture.

After they make their choice or choices, trainees then read explanations of the various alternatives. Malpass and Salancik (1977) found that trainees learn more when they read explanations of all the alternatives, not just the explanations of the alternatives that they chose. Thus, all trainees are asked to read all the explanations, even those for alternatives that they considered incorrect.

1. This is not the case. Haiyan could be quite interested in a lunch date with Dan, but events took place that caused her to prioritize her interactions with people. This need for prioritization is discussed in other explanations of the alternatives.
2. Unfortunately, this is not true. Chinese professors are not particularly generous in offering their time to students. One reason is that salaries are not particularly high, so professors have to spend time consulting to earn a decent living. American professors are known to international students as being available for questions and advice.

3. This is a good answer. China is a high power-distance culture in which high-status people are given a great deal of deference and respect. When a high-status person makes a request of a lower status person, the latter is expected to accept. His or her friends understand this expectation and will quickly understand that a student must accept a request for a meeting with a professor.
4. This is true from Dan's point of view. In Dan's culture, people are expected to give a good, clear reason if they have to cancel a previously agreed upon social engagement. However, this is not true from Haiyan's viewpoint. In China, people who are close to each other do not have to give reasons for a broken social engagement. The assumption is that since people are close, they will trust one another that they would only break an engagement for a good reason. Saying that "I have things" is sufficient. Actually, Haiyan is sending a subtle signal that she values her interactions with Dan. She feels that she is close enough to Dan so that she can cancel a social engagement without a clear reason, and she assumes that Dan will understand, given their positive relationship.
5. This is not the best answer. Actually, friends often get involved as intermediaries when they feel that there is a conflict, or even the potential for conflict, between two people. Haiyan has likely told her friends about her relationship with Dan. If those friends feel that Dan should know something about Haiyan's activities, then they will tell Dan. China is a collectivistic society, and there are far fewer secrets within a collective group of friends than in an individualistic amalgamation of people who socialize together.

If trainees read all the alternatives and explanations, they have been introduced to a number of concepts that will probably be part of many actual intercultural encounters they experience. These concepts include power distance, status, collectivism, relationship development, and expectation that friends have of each other.

OTHER EXAMPLES OF CULTURE ASSIMILATORS

A *culture-specific assimilator*. Various culture assimilators have been developed since the 1970s, and some have incorporated features that are worthy of consideration in any current efforts. Michael Salzman (1991) developed an assimilator (under its alternative name, an intercultural sensitizer) for use by Anglo Americans who accept positions on a Navajo reservation. He incorporated several innovations. All incidents were written in collaboration with Navajo elders, and because some information in Navajo society is considered secret from outsiders, all content was cleared with the elders. A group of Navajos acted as a validation sample for the incidents, and Salzman reported the percentages of Navajo respondents who thought that a given explanation helped explain an incident. The reporting of percentages moves readers away from the stereotype that "everyone agrees about key issues in a culture," which is an impossibility, given culture's complexity. I have modified Salzman's original incident and explanations only slightly. This incident also shows that cross-cultural training materials can deal with people's intense emotional reactions to movements across cultures as well as present information about the cultural differences they are likely to encounter.

Sojourner emotions: Bring true to one's first culture. A 13-year-old Navajo student, now attending boarding school on the reservation, recalls when she was attending elementary school in Utah. In this school, the student, whose first language was Navajo, found herself with "only Anglos and a few African Americans." She reports that she was teased "about my color, the way I talked and also did things." She noticed that the other girls had "short, permed hair" and decided to cut her long hair and to style it like the others. After some time, she "got used to them and made friends with them." She thought that her initial difficulties were "because of color. Because they were more modern while we're more traditional." When asked what non-Navajo teachers needed to know about her in order to treat her more respectfully as a Navajo, she replied, "Give us time to think, and help us with our work. Also, learn more or read more about our culture and traditions."

In what ways is an attempt to “live in two worlds” (Anglo and Navajo) a problem for this Navajo child and others in similar situations?

1. The Navajo person becomes unable to function well in either world.
2. There is an inner conflict of being fake and behaving in ways you don’t feel like but you do because of the setting.
3. The “problem” of living in two worlds is really not a problem for most Navajo people from traditional backgrounds.
4. The Navajo person becomes confused about which behavior is considered appropriate in each setting.

Trainees then pick one of more alternatives. They then read corresponding explanations. The percentages refer to the validation sample made up of respected Navajo community elders whose members Salzman (1991) consulted in his research.

1. No. Few (12 percent) of the Navajo sample chose this response. Survival often depends on an ability to “function in both worlds” regardless of stress the individual Navajo must endure.
2. Excellent choice! This was the most popular (43.1 percent) Navajo response. It gives important insight into a stressful situation. Consultants offer the following observations: When she returns to the reservation, family members may object. Elders may reprimand her for trying to be like the other culture. She is then out of place. The message is that you must learn to live in two worlds. Stress is placed on every aspect of a person—physical, language, topics of conversation—all are affected by the tensions created by trying to live in two worlds. One must be so open-minded, but there is the inner conflict of being fake. You are manipulated by the cultural setting. Inside, you don’t feel like behaving in a certain way, but you do because of the setting. This leads to withdrawal behavior because of feeling compromised.
3. This is not the most preferred answer among the Navajo informants, but almost 20 percent of them thought that living in two worlds is really not a problem for most Navajos from traditional backgrounds. Please make another choice.
4. This is an interesting answer and is related to the most preferred answer given by the Navajo informants. This was the second most popular (25.9 percent) Navajo response. This is a substantial percentage of the total sample, and this alternative is closely related to the most frequently selected Navajo choice. Try again to get a more complete understanding of this stressful situation.

In my work in Hawaii, I have also found this complaint about being “fake” (the exact word used). I was working with adolescents from rural communities who wanted to apply for summer jobs. The staff gave well-known interviewing advice: smile, offer a firm but not bone-crushing handshake, act enthusiastic about working, be prepared to talk about your past job experience, be prepared to talk about how you handled a difficulty involving another person at school or in another job, follow up the interview with thank-you notes to the people with whom you talked, and so forth.

Some of the adolescents complained that they feel phony when they act in this way because it is not typical of their everyday behavior in their communities. Working with Filipino adolescents in Hawaii who expressed an interest in maintaining the culture of the parents as well as benefiting from the wider society (opportunities for growth, schools, jobs, friends from different ethnic groups), Nayani (2009) found that some adolescents experienced little stress. Predictors of low stress included good relationships with parents, encouragement from parents to benefit from the wide variety of opportunities available inside and outside Filipino culture, and open communication between adolescents and parents.

Another point to be made is suggested by a comment of the Navajo adolescent who remembered this incident. The young lady said that Anglo teachers should “give us time to think, and help us with our work.” In many collective societies, there is not an emphasis on calling attention to oneself and to standing out as a unique individual. Rather, people fit in to a collective and make contributions to a group. One way for people from individualist cultures to stand out is to be the first to come up with an idea or with an answer to a question. Many individualist readers of this chapter will remember the reinforcement they received in elementary school when they shot their hand in the air when the teacher asked a question of the class.

In Navajo culture, however, there is not an emphasis on speaking up with the first thought that comes to people’s minds. Rather, people are expected to think about a question and to come up with a response that reflects careful thought and is worth the attention of others. In this incident, the Navajo adolescent is undoubtedly remembering teachers who did not give her time to think about answers to a question and instead shifted their attention to seemingly more eager Anglo students who had raised their hands. Realizing this appreciation of slow and deliberate thought, some professors I know ask collectivistic students to bring in questions *for the next class*. The professors know that the reading material is challenging and that students will have questions, but they will appreciate having time to develop a good question.

A CULTURE-GENERAL ASSIMILATOR

In the late 1970s, I felt that there was enough research-based information on intercultural experiences to warrant a long literature review and integration, and I published it as *Cross-Cultural Encounters: Face-to-Face Interaction* (Brislin, 1981). When I first started the project, I envisioned chapters based on the types of experience in which sojourners had participated. I envisioned chapters on the experiences of international students, international businesspeople, technical assistance advisers, diplomats, armed forces personnel on overseas assignments, adolescent participants in exchange programs sponsored by organizations such as the Experiment in International Living, and so forth. There came a point when my views changed regarding the best organization of the literature review. Different researchers who had worked with different types of sojourners were discussing similar concepts. These concepts included the abilities of people to manage the stress brought on by intercultural interactions, their thought and attributional processes when faced with cultural differences, the groups they join, the organizational structures in which they work, and the processes of adjustment over time.

A few years later, when a group of graduate students wanted to develop some intercultural training materials, I suggested that we develop a set of critical incidents based on these common experiences and psychological challenges that many different sojourners face. This led to the publication of the culture-general assimilator (Brislin, Cushner, Cherrie, & Yong, 1986). Incidents were written to deal with concepts sojourners regularly face, regardless of the country in which they are living or the specific jobs or tasks that they need to perform. For example, many sojourners want to develop positive interpersonal relations with hosts but are unaware of the norms surrounding issues such as who is approached to participate in various social events and what people actually do at these events. The following incident is abbreviated from the Brislin et al. (1986) collection and again deals with emotional experiences stemming from interpersonal relationships.

Sojourner emotions: Feelings of exclusion. Fumio Tanaka, from Osaka, Japan, was an international graduate student at the University of Maryland. While interacting effectively in classes with American students, he found himself alone on Friday afternoons. He wondered if he was doing something wrong when he saw students leaving the department where he worked and going off to a nearby restaurant for pizza and beer at about 5:00 p.m. most Fridays. He had not been invited to these informal gatherings. If Fumio asked you for help, what would you say?

1. Such gatherings are based on formal invitations, and Fumio is not well enough integrated into the group of graduate students to receive such invitations.
2. Such gatherings are based on pairings of romantic couples, and Fumio had no such special friend.
3. The Americans were rude not to invite Fumio, who is after all a visitor from Japan and a guest in the U.S.
4. Such gatherings are not based on formal invitations, and people just take the initiative to show up and participate.

Readers make a choice and then read explanations.

1. Such gatherings are rarely so formal that written or even oral invitations are issues. Please choose another answer.
2. While some of the participants may be romantically involved, this is not a prerequisite to being invited. Please choose another answer.
3. This certainly might be an attribution that is going through Fumio's mind. Hosts, in a perfect world, should be sensitive to the loneliness sojourners often feel and should make attempts to include them in various types of activities. Rather than being purposely rude, the Americans may have been "unthinking." This is an answer that adds to the explanation of the incident. There is another answer, and our advice is that you pick another alternative.
4. This is a good answer. In many universities in the U.S., graduate students in a department have an informal gathering at a nearby restaurant, pub, or bar. People just show up, and there are no formal invitations. The advice to Fumio, then, is to put any shyness aside and to join the group when he sees people leave the building on a Friday afternoon. He would be well advised to know what participants will talk about. While they might continue discussions of important findings from the most current journal articles, they are very likely to tell a lot of jokes and to "blow off steam." Fumio would be wise to learn some jokes or to tell some Japanese jokes and be prepared to explain why there are considered funny in Japan.

Even though sojourners may not be undertaking the role of international student, and even though they might not be from Japan or the U.S., the developers of the cultural-general assimilator argue that exposure to selected incidents can be valuable as long as they deal with general issues. Here, the issue is developing interpersonal relations, and this incident can sensitize sojourners to questions about the timing of social events, who participates, differences between events to which people must be invited and events that are more open, who is purposefully excluded, and how people can increase the chances of successful participation. Regarding this last point, another contributor to this volume, Shinobu Kitayama, remembers his first months at the University of Michigan. As a Japanese exchange student, he found that he had to develop a memorable, individualistic style when meeting others at departmental gatherings. He had to say where he was from, what his professional interests were, what his opinions were on various topics, and what sorts of activities he enjoyed on weekends. These individualistic statements allowed others to view him as an individual rather than as just another international student, and allowed them to invite him to various outings where he could pursue the interests he discussed.

A THEORY-BASED CULTURE ASSIMILATOR

Taking seriously the assertion that research-based concepts can assist people's adjustment challenges when they move across cultural boundaries, Bhawuk (2001) developed a culture assimilator based on introducing trainees to four defining features of individualism and collectivism. He argued

that if trainees learn the defining features, then they can use this information to “figure out” a wide variety of cross-cultural adjustment issues that have individualism and collectivism as a basis.

There are four defining features (Triandis, 1995). First, people from individualistic cultures are more likely than collectivists to have a sense of self that focuses on the unique person with minimal reference to others. Thus, there is a great deal of emphasis on self-statements that start with “I.” In contrast, people from collectivist cultures do not have such a strong sense of the unique self and instead incorporate others into their sense of identity. Consequently, they use “we” more when thinking about themselves. The “we” can include family members, people in one’s organization, and long-time friends.

Second, individualists pursue their own goals, while collectivists are more likely to integrate their goals with goals of their in-group. Individualists will move to another part of their country to obtain a promotion and a raise in salary. Collectivists may do the same, but they will do so only after integrating their own goals with the goals of in-group members. For example, the parents of collectivists will have goals, and any one person will be sure these are taken care of before moving to obtain a promotion.

Third, individualists are likely to consult their attitudes when faced with choices. Attitudes involve people’s evaluative assessment of various social phenomena that they encounter. Individualists in a marriage want to start a family. They will consult their attitudes on such topics as birth control, the number of children to have, the spacing of children, and the age of the mother when she has the first child. Collectivists are more likely to consult norms, that is, the standards and preferences of in-group members.

Finally, individualists are likely to make decisions on a rational basis. They want to know what is fair, what is equitable, and what is written down given previous agreements arrived at after open discussions. Such considerations protect an individual’s interests. Although collectivists are certainly able to make rational decisions, they are more likely to make decisions based on relational considerations. If they must make difficult decisions, they are likely to consider whom in their in-group will be affected, whom they can call upon given the past development of good interpersonal relations, and whom they will help save face given the desire to continue positive relations in the future.

After learning about these defining features, trainees use their knowledge and attempt to solve some culture assimilator incidents. Here is one that I have modified and shortened from Bhawuk’s (2001) original.

Sojourner emotions: Causing displeasure. Mr. McCann, vice president of procurement of a garment distributor, had emailed a letter to Mr. Coloso, his Mexican supplier, to come and see him in Los Angeles to discuss “an important matter” for which he, McCann, was getting flak from his superior. Mr. Coloso called him and said that he had to attend to a number of personal engagements, and he would visit Los Angeles in two weeks. Mr. McCann was incredulous and did not hide his displeasure, and he hung up on a puzzled Mr. Coloso.

Mr. Coloso arrived in Los Angeles to see Mr. McCann four days later. After some pleasantries, Mr. McCann pulled out contract papers and told Mr. Coloso that according to these papers, the Mexican company could be billed a late delivery fee for two recent consignments.

Mr. Coloso was pleased that his company had done business with Mr. McCann’s organization for many years and that they had always provided high-quality garments. However, delivery deadlines were missed because a local political problem, which had disrupted productions. Mr. McCann did not seem interested in hearing about this problem. Mr. Coloso appeared to be confused and upset.

What is happening here? Focus on cultural differences.

1. Mr. McCann knows how to deal with suppliers who do not meet deadlines. He is right in dealing with Mr. Coloso firmly.
2. Mr. Coloso is not used to this brusque and uncaring style of management.
3. Mr. Coloso is upset that he could not convince Mr. McCann of the genuineness of his case.

4. Mr. McCann is worried that he may lose his job.

Trainees then read explanations corresponding to their choices.

1. This is the approach that many American and European (individualist) managers take when dealing with managers from collectivistic cultures. There is an element of truth that many collectivist managers need to be pushed a bit to keep their deadlines in focus. However, for Mr. McCann to think that Mr. Coloso came to see him because of his firmness is rather parochial. Please choose again.
2. Among Latinos there is the concept of *simpatico*, which means being pleasant and interpersonally sensitive. In other collectivistic cultures (e.g., in Asia), smooth interpersonal relations are valued, and people make efforts to be agreeable even in demanding situations and are willing to adjust their behavior to fit in. They are also expected to be sensitive to interpersonal relationships developed over time and to explore problem solving through these relationships rather than refer to formal legal contracts. This is the best response.
3. It is quite plausible that Mr. Coloso feels dejected because he could not make Mr. McCann understand his limitations and that the political problems would not cause permanent difficulties. However, there is a more pressing issue here. Please choose again.
4. While always possible in fast-moving economies where job security is always tenuous, this is not the best answer given the advice to focus on cultural differences. Please choose again.

THE ADVANTAGES OF CRITICAL INCIDENTS

Over a number of years, I have observed that critical incidents have quite a few advantages in both research and practical applications in training and education. One is that they provide excellent examples that help elucidate complex concepts. The presentation of abstract concepts such as individualism-collectivism (Triandis, this volume) or tightness-looseness (Gelfand, this volume) can leave some readers and listeners with glassy eyes. Specific examples, in critical incident form, give life to the concepts because people have to understand them to make sense of the happenings in the incidents.

In experiential training programs, critical incidents can form the basis for role-playing exercises (Brislin & Yoshida, 1994). In the incident taken from Salzman's (1991) materials for Anglo teachers working with the Navajo, one trainee could play the adolescent and another could play the teacher. The teacher could practice different behaviors that would best help the student achieve her learning and adjustment goals in the school where the student is a minority group member. Given the basic outline involving the teacher and student, other characters could be added into the role play. Another person could play an elder from the Navajo culture whom the teacher might seek out for advice. Another person could play the student's mother, who expresses her fears that her daughter is losing the culture of her birth, given her choice of friends, dress, and teenage interests.

When many critical incidents are put together into a full culture assimilator, some of them can be used to create a dependent variable to demonstrate the effects of training. In the culture-general assimilator (Cushner & Brislin, 1996), for example, there are 110 incidents, far too many to cover in a training program. Trainees would be overwhelmed with too much information if all 110 were presented and analyzed. My experience is that about four incidents can be covered in one hour, fewer if the incidents form the basis of role-playing exercises. Even in a two-day program (which is an uncommonly long time), less than half of the 110 incidents can be covered. Thus, some of the incidents can be used as a multi-item dependent variable. This assumption is that certain concepts are covered (anxiety during intercultural encounters, adjusting to differing emphases on collectivism versus individualism) through the analysis of certain critical incidents. If training is successful, participants should be able to analyze other and different critical incidents that deal with the same

underlying concepts. Such use of unseen critical incidents as a dependent variable was one approach taken by Bhawuk (2001) in his work with a theory-based culture assimilator.

WRITING FOR A GENERAL AUDIENCE

In 2001 I was asked by the *Honolulu Star Bulletin* to write a weekly newspaper column dealing with the cultural diversity and business issues. Revised and expanded versions of 100 columns have been published in book form (Brislin, 2008). I used critical incidents in many of the columns because I thought they would capture reader interest. Ideally, readers can imagine the events in the incidents happening to themselves or to others whom they know. In this incident, I examined the special adjustments that people face when they return to their own culture after an overseas experience.

Sojourner emotions: Returning to one's own culture. "I've learned a lot on this overseas assignment, but it will be good to get home," Bill Evans thought to himself during the going-away party his colleagues arranged for him. Bill had been working at the Hong Kong branch of a large investment firm for three years, and he was about to return to the Chicago home office. He was looking forward to seeing old associates at work, and he even planned to look up his former girlfriend.

After an enthusiastic welcome back at the Chicago office, Bill began to feel a sense of discontent. His stories of life in Hong Kong were met with blank stares. He found that his work assignments dealing with domestic issues in the U.S. were uninteresting and seemingly unimportant. His old girlfriend was seeing someone else. He began to feel that his three years in Hong Kong were not the career advancer that his old boss said they would be.

Bill may be experiencing reverse culture shock (Sussman, 2001). Many people who accept overseas assignments go through a period of stress known as culture shock as they adjust to new demands in another country. These same people often experience reverse culture shock upon their return home. Reverse culture shock can often be extremely intense because people don't expect difficulties. People often think, "What can be easier than returning to my home and to the country I know so well?"

Reasons for reverse culture shock include the reactions of others. Old colleagues have difficulties relating to the stories that returnees tell because they have not had similar experiences. "People listen to my stories for about 15 minutes, but at minute number 16 they start looking at their watches," returnees complain. People who were subordinates in the workplace may have been promoted, so the returnees have a new boss and must develop a different type of relationship. Old friends are likely to have experienced various life changes that give them less time for interactions with returnees. The line from the old song, "Wedding bells have broken up that old gang of mine," becomes applicable.

Personnel specialists in an organization's human resources division can offer programs to prepare people for reverse culture shock, but attendance at such programs can be disappointingly small. People rarely consider the possibility of reverse culture shock and find the thought of attending a special program on "returning home" as a strange use of their time.

In writing the columns, I tried to identify aspects of American culture that international visitors might find puzzling. Asians, for example, often complain that they have a difficult time figuring out the norms for interacting with Americans at professional gatherings. They are accustomed to spending a longer period of time with people than is common in the U.S., where "circulating" is valued. At times, Americans can be so curt that they cause Asians to label interactions as rude.

Sojourner emotions: Reactions to perceived rudeness. Peter Chiu, from Hong Kong, was a wholesaler in precious gems. He traveled to Washington, D. C., to make inquiries about pending legislation concerning import quotas. He had attended college with Beth Reardon, who was now a congressional aide on Capitol Hill. Beth invited Peter to attend a fundraiser for a prominent senator.

Upon arriving at the fundraiser, Peter was given a nametag. He knew that he should try to circulate among the various attendees, and he began this task. Some people would walk up to him, look at his nametag, and then walk away. Others would begin talking with him but after about fifteen seconds would do an "about face" and leave to talk with someone else. People told him they had

to leave shortly since they had four other social gatherings to attend that evening. Peter had never encountered behaviors like these and felt ignored and disrespected.

Beth seems unaware that there are communication norms in Washington, D. C., about which Peter may not be knowledgeable. Culture provides guidance for shared behaviors among people seeking similar goals. The behaviors eventually become “proper and acceptable” if people who practice them increase their success rate in attaining their goals. For example, many people share the goal of honoring high school graduates. The shared behavior in Hawaii is that friends and relatives present graduates with flower leis at the reception following the graduation ceremony. This behavior is rare in other parts of the U.S.

Peter’s reactions might be less negative if he understands the goals that people have. Many attendees at the fundraiser want to pursue various lobbying efforts or want to improve the legislation on which they are working. In Washington, D. C., people have agreed to share certain behaviors that are admittedly rude in most other parts of the U.S. Attendees admit this and modify these behaviors when visiting other cities. People look at someone else’s nametag. If that other person is not working for an organization related to current lobbying and legislative efforts, people move on to someone else. Chatting with people for 15 seconds and leaving abruptly serves the same goal. In this short period of time, attendees can determine if someone else will be useful or not. If the shared behavior of “many social gatherings in the same evening” is considered acceptable, then people can go to different events in the hopes of finding someone who can contribute to their current work projects.

CONCLUSION

There is often a disconnect between basic research in cross-cultural psychology and the work of various practitioners (trainers, teachers, counselors) who might use the research. This is a widespread problem, not one confined to the preparation of people for intercultural experiences (Lawler, 2007). I have tried to show in this chapter that practitioners can benefit from basic research findings if the research can be communicated in a way that is accessible and useful in their everyday work. Critical incidents, in which people use research findings to solve intercultural communication difficulties, can provide a bridge between theory and practice.

REFERENCES

- Bhawuk, D. P. S. (2001). Evolution of culture assimilators: Toward theory-based assimilators. *International Journal of Intercultural Relations*, 25, 141–163.
- Brislin, R. (1981). *Cross-cultural encounters: Face-to-face interaction*. New York: Pergamon.
- Brislin, R. (2008). *Working with cultural differences: Dealing effectively with diversity in the workplace*. Westport, CT: Greenwood.
- Brislin, R., & Yoshida, T. (1994). *Intercultural communication training: An introduction*. Thousand Oaks, CA: Sage.
- Brislin, R., Cushner, K., Cherrie, C., & Yong, M. (1986). *Intercultural interactions: A practical guide*. Thousand Oaks, CA: Sage.
- Cushner, K., & Brislin, R. (1996). *Intercultural interactions: A practical guide* (2nd ed.). Thousand Oaks, CA: Sage.
- Fiedler, F., Mitchell, T., & Triandis, H. (1971). The culture assimilator: An approach to cross-cultural training. *Journal of Applied Psychology*, 55, 95–102.
- Fiske, A. (1991). *Structures of social life*. New York: Free Press.
- Flanagan, J. (1954). The critical incident technique. *Psychological Bulletin*, 51, 327–358.
- Foa, U., & Chemers, M. (1967). The significance of role behavior differentiation for cross-cultural interaction training. *International Journal of Psychology*, 2, 45–57.
- Hall, E. (1959). *The silent language*. New York: Doubleday.
- Harvey, R. (1991). Job analysis. In M. Dunnette & L. Hough (Eds.), *Handbook of industrial and organizational psychology*, 2nd ed. (pp. 71–164). Palo Alto, CA: Consulting Psychologists Press.

- Lawler, E. (2007). Why HR practices are not evidence-based. *Academy of Management Journal*, 50, 1033–1036.
- Malpass, R., & Salancik, G. (1977). Linear and branching formats in culture assimilator training. *International Journal of Intercultural Relations*, 1, 76–87.
- Nayani, F. (2009). Family communication patterns and ethnic identity development of multiethnic Filipino Americans. In H. McCubbin, B., DeBarsche, M. Ripke, M. Hart, F. Takasugi, & K. Ontai (Eds.), *Multiethnic families: development, identity, and resilience*. Honolulu: University of Hawaii Press.
- Noe, R., Hollenbeck, R., Gerhart, B., & Wright, P. (2008). *Human resource management*, 6th ed. New York: McGraw Hill.
- Salzman, M. (1991). *A Navajo intercultural sensitizer*. Fairbanks: Center for Cross-Cultural Studies, University of Alaska.
- Sussman, N. (2001). Cultural transitions: Psychological preparedness, repatriation, and attributions among American managers. *International Journal of Intercultural Relations*, 25, 109–123.
- Triandis, H. (1972). *The analysis of subjective culture*. New York: Wiley.
- Triandis, H. (1995). *Individualism and collectivism*. Boulder, CO: Westport.
- Wang, M., Brislin, R., Wang, W., Williams, D., and Chao, J. (2000). *Turning bricks into jade: Critical incidents for mutual understanding among Chinese and Americans*. Yarmouth, ME: Intercultural Press.

23 Self-Conscious Emotions as Emotional Systems

The Role of Culture in Shame and Pride Systems

Richard P. Bagozzi, Willem Verbeke, and Frank Belschak

A common approach to judging people in organizations is to focus on performance; hence, the ubiquitous question, “What have you done for me lately?” In contrast, the questions of character are ways for leaders to look deeper and glimpse character, the big engine that drives performance....How flexible are their moral codes? Are they ready to take responsibility? Can they skillfully combine principles and pragmatism? If leaders have thought through these questions for themselves, they will be in better positions to ask and answer these questions about others.

Badaracco, 2006, p. 197

SELF-CONSCIOUS EMOTIONS AS SOCIAL BAROMETERS

People interact with other persons within social boundaries that are regulated by norms. This occurs most frequently within the context of such social groupings as families, communities, organizations, and cultures where the boundaries often overlap (Bourdieu, 1993; Gilbert, 2007). People have basic needs to belong to social groups as well as a need to attain status within social groups; therefore, they need to learn a myriad of norms and expectations if they want to navigate successfully within those boundaries. These norms, as Fessler (2007, p. 180) notes, appear as baroque—but rarely, if ever, are they articulated explicitly. Typically, social norms are learned via feedback (positive or negative) during personal interaction with *significant* others (e.g., parents, supervisors, colleagues, peers) within these social boundaries (e.g., Lagattuta & Thompson, 2007). During such interactions people come to see and evaluate themselves (the “I” self) through the eyes of the others (the “me” self, the mental representations that constitute one’s identity). Consequently, people socially construct identity goals; for example, if I want to be seen as a colleague in good standing, then I should work harder or make special efforts to help colleagues (Tracy & Robins, 2007a, p. 10). Self-conscious emotions, like shame and pride, function as emotional barometers, providing immediate and salient feedback on people’s social acceptability (Tangney, Stuewig, & Mashek, 2007, p. 22).

Fessler (2007) argues that as social boundaries become less hierarchical, people have to find out, based upon feedback from others, how to differentiate themselves from others, such that they can be perceived as persons with character (e.g., Badaracco, 2006; Sabini & Silver, 1997). *Character* refers here to categorizations of a person by significant others, and is conveyed typically as chitchat or gossip about that person in the person’s absence (Sabini & Silver, 1997). Experiencing self-conscious emotions allows people to shape (construe, craft, as well as protect) their identities, such that they fine-tune their identity (and related identity goals), which in turn allows them to be categorized and perceived by significant others as worthy people within their community (Keltner & Haidt, 1999). This point of view on self-conscious emotions has been termed a functional perspective: “[S]elf-conscious emotions help humans form and maintain cooperative, dyadic interactions and negotiate

places and roles within dynamic, ever-changing social hierarchies" (Goetz & Keltner, 2007, p. 155). We take such a functional perspective on emotions as the main theme of this chapter.

Psychologists have proposed a diversity of psychological mechanisms that capture how self-conscious emotions are experienced and how they affect behavior and well-being. Two exemplars can be found in the process models proposed by Fischer and Tangney (1995) and Tracy and Robins (2007a). Basically these models dwell on people's *primary identity appraisals*, where people ask whether the actions they undertake or the achievements they accomplish reflect positively or negatively on the identities they like to reveal to significant others. If an outcome one produces is praised by significant others, people experience it as a boost in identity (the "me" self) and feel proud; if an outcome one produces is disapproved by significant others, people experience it as a diminished self and feel embarrassed or ashamed. In the former case, actions leading to valued outcomes are promoted or reinforced; in the latter, corrective actions are implicated.

In this chapter, we propose two distinctions to refine our functional perspective on self-conscious emotions. First, if self-conscious emotions are to function socially, the social context must be explicitly taken into account. This means focusing on specific social boundaries or social environments in which self-conscious processes are experienced and studying how these self-conscious processes affect behavior. The appraisals of self by significant others play important roles here. In this chapter, we scrutinize salespeople whose roles and responsibilities are to make deals with customers. In their roles, salespeople are accountable to significant others (e.g., customers, managers, colleagues) for their actions. The roles, in turn, are embedded in a larger culture, which has constraining and facilitating effects on action.

Second, beyond the experience of self-conscious emotions, people also regulate these emotions, especially their expression and the way they are translated into action (e.g., Li & Fischer, 2007). Similar to Bonnano (2001), we suggest that the experience and self-regulation of self-conscious emotions operate according to a homeostatic system. The experience of self-conscious emotions not only involves identity or primary appraisal processes, but also entails *secondary identity appraisals*. That is, when people experience self-conscious emotions, they consider how felt emotions and their display, plus their connection to action, fit a desired emotional state or self-construal. Here, appraisals by significant others and attributions of character play defining roles, as we develop below. To take an example, pride can involve narcissistic-like components and feelings of dominance or superiority and turn into hubris, with bystanders coming to attribute egotism and arrogance to the prideful person if he/she does not consciously regulate the expressed pride (Gross, 1999). A common attribution by observers of people exhibiting conceit or excessive self-centeredness is lack of character (e.g., Badaracco, 2006; Sabini & Silver, 1997; Tracy & Robbins, 2007b). In order to refer to the way in which people experience and self-regulate the expression of these self-conscious emotions and how they affect performance within a social boundary, we introduced the concept of the *self-conscious emotional system* (see Bagozzi, Verbeke, & Gavino, 2003).

In this chapter, we study how self-conscious emotional systems within commercial selling environments are affected by culture (the larger social boundaries in which salespeople are embedded). We describe two studies which were developed sequentially. In the first study we recount how the experience of shame within different cultures (self-construals) affect in-role and extra-role performance (hence called a *shame system*). In the second study, we explore the complexity of *pride systems*. We focus on how self-construals (or ideal emotional selves) and emotional dispositions (e.g., pride proneness) moderate how salespeople self-regulate pride, such that they fit into or differentiate themselves within specific social boundaries.

More concretely, we explore shame and pride systems in two different countries, the Netherlands and the Philippines, because these countries exemplify two contrasting cultures that are known to affect the way in which people shape or script their emotions in alignment with the different self-construals found in these cultures (Kitayama, Markus, & Matsumoto, 1995). In *independent-based* cultures (e.g., the Netherlands, the U.S.), emotions tend to serve as a basis for interpersonal influence and to differentiate the self from others, thus stressing independence. The imperative is to stand out

from others. In *interdependent-based* cultures (e.g., the Philippines, Japan), emotions engage and connect the self with ongoing relationships, with the purpose of promoting interdependence of the self with others. The imperative is to fit in with others.

As a point of comparison and for perspective, consider the notions of individualism and collectivism (e.g., Triandis, 1995; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). In this regard, Hofstede's (2001) research with the Individualism Index (II) is revealing. The II is normed from 0 to 100 and was originally applied to employees in 50 countries around the world. Employees in the Netherlands had a score of 90 on this scale and were tied for 4th in rank; employees in the Philippines had a score of 32 and were ranked 31st. This suggests that the Dutch should be relatively individualistic and exhibit an independent-based self, whereas Filipinos should be relatively collectivistic and display an interdependent-based self.

THE SELF-CONSCIOUS EMOTION SYSTEM

The job of salespeople is to sell goods and services. To accomplish this goal, they build relationships with customers, colleagues, and managers. In everyday exchanges with these significant others, salespeople often experience incidents that reveal and threaten their presented or core identities. For example, they inadvertently knock over a cup of coffee, make a sexist comment, overly boast of past successes, insult a customer, or are belittled by a customer for an error made. The feelings of embarrassment, arrogance, hubris, superiority, shame, and the like made in the presence of significant others lead the "I" self to make *primary identity appraisals to the effect* that they have or have not met the standards ("me" self) of these significant others (e.g., Gasper & Clore, 2000; Salovey, Bedell, Detweiler, & Mayer, 2000; Clark & Brissette, 2000; Tracy & Robins, 2007a). Lazarus (1991, p. 121) conjectured that all emotions reflect a core relational theme, in that they exhibit that which is the "central...relational harm or benefit in adaptational encounters." Core relational themes are ongoing and future oriented and become salient to one's maintenance of bonds within their community (see also Lewis, 2007; Fischer & Tangney, 1995). Taking shame as an example, when one experiences shame in an encounter, it interrupts one's goal-oriented processes because it forces people to realize that they do not fit the norms and expectations of significant others (Frijda, 1986; Tangney et al., 2007), and as a consequence, one feels ashamed, along with certain self-focused feelings and cognitions (see Bagozzi et al., 2003, for an example in the salesforce context).

Self-conscious emotional experiences are self-regulated within a larger emotional homeostasis system (Bonanno, 2001; Westphal & Bonanno, 2004). Here, feedback processes are activated by reference goals pertaining to ideal frequencies, intensities, or durations of experiential, expressive, or physiological channels of emotional responses (Bonanno, 2001, p. 256). Specifically, the self-regulation of self-conscious emotions involves the suppression or enhancement of emotional expression done in order to manage the consequences of emotional responses for one's personal goals with respect to idealized self-images (self-construals)—shaped by significant others. Such socially contextualized evaluations are special cases of *secondary identity appraisals*, which in turn evoke self-regulation. Self-regulation addresses how or whether one is to express an emotion in a specific context, and is frequently manifest as display rules. Likewise, self-regulation concerns the initiation or suppression of specific actions so as to fit in with or stand out from others in the particular situation at hand. An example of an idealized self-image for a person within a sales context is when a salesperson wishes to be perceived by the customer as a person who is forthcoming, helpful, and responsive, yet wants to gain financially from the relationship. Emotional expressions that might be perceived by customers to lead to negative social consequences (e.g., disruption of communication as a consequence of being cocky when feeling proud) are suppressed, whereas those that lead to positive social consequences (e.g., showing some deference and restraint when feeling shame as a result of making a mistake on a contract offering) are enhanced. Researchers have termed similar episodes of self-regulation within professional settings as *emotional work* (e.g., Hochschild, 1983).

Responses to self-construals over time shape one's emotions (Bonanno, 2001; Lagatutta & Thompson, 2007; Li & Fischer, 2007). For instance, people with independent-based versus interdependent-based self-construals experience shame with different intensities and express it differently as well, in social settings, as a function of learning (Matsumoto, Kudoh, Scherer, & Wallbott, 1988). Each professional relationship promotes domain-specific regulation of emotional experiences and reveals unique display rules. The aspects of emotional experience and expression and of self-regulation of emotions constitute a self-conscious emotion system. This system is characterized by features of the context in which people are embedded, primary identity appraisals (experience of the emotion), secondary identity appraisals, self-construals which regulate and shape emotions, and finally the motivational effects of self-conscious emotions on people's performance and their standing in the social group in which they belong (Li & Fischer, 2007). Figure 23.1 summarizes the components of the self-conscious emotion control system and their interrelationships.

Because the role of culture (as a social boundary) is one of the key features of our functional approach to self-conscious emotions, we briefly describe two main construals of self (e.g., Hess & Kirouac, 2003; Markus & Kitayama, 1991; Shweder & Bourne, 1984; Triandis, 1995) that play important roles in how self-conscious systems are patterned and function. We describe these within the specific context of two studies to be described in this chapter. Consider first, self-construals.

- The Dutch, like many people in Western cultures, tend to experience an *independent self-concept*, which is characterized by an emphasis on personal goals, personal achievement, and appreciation of one's differences from others. People with an independent self-concept tend to be individualistic, egocentric, autonomous, self-reliant, and self-contained. They place considerable importance on asserting the self and are driven by self-serving motives. The individual is the primary unit of consciousness, with the self coterminous with one's own body. Relationships with others frequently serve as standards of self-appraisal, and the independent self takes a strategic posture vis-à-vis others in an effort to express or assert one's internal attributes. Emphasis is placed on displaying one's attributes or feelings (e.g., revealing anger, showing pride). The normative imperative is to become independent from others and discover one's uniqueness.
- Filipinos, like many people in Eastern cultures, tend to experience an *interdependent self-concept*, which is characterized by stress placed on goals of a group to which one belongs,

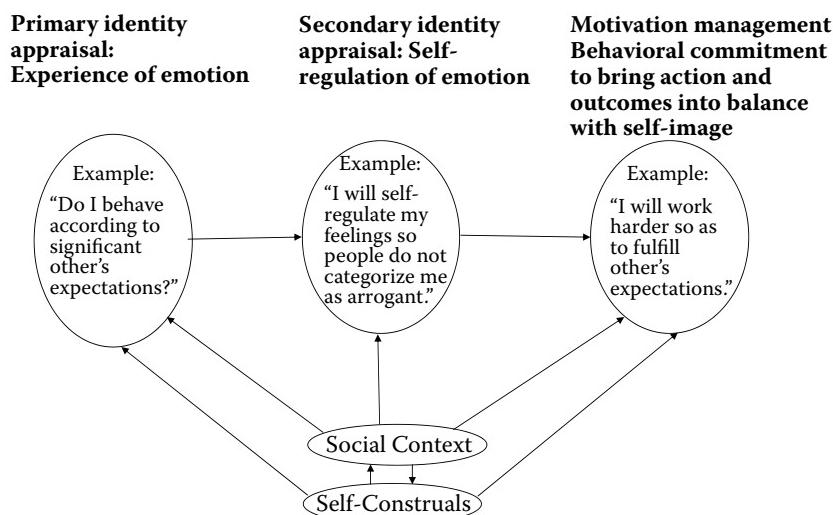


FIGURE 23.1 The self-conscious emotional system.

attention to fitting in with others, and appreciation of commonalities with others. People with an interdependent self-concept tend to be obedient, sociocentric, holistic, connected, and relation oriented. They place much importance on social harmony and are driven by other-serving motives. The social relationships one has are the primary unit of consciousness, with the self coterminous with either a group or set of roles one has with individuals across groups. Relationships with others are ends in and of themselves, and the interdependent self takes a stance vis-à-vis others of giving and receiving social support. One's personal attributes are secondary and are allowed to change as needed in response to situational demands. Emphasis is placed on controlling one's attributes or feelings (e.g., curbing displays of anger so as to avoid conflict). The normative imperative is to maintain one's interdependence with others and contribute to the welfare of the group.

Another important component of our functional approach is the context in which the self-conscious emotions occur. With respect to selling contexts, we conceive of salespeople as multiple-goal strivers. When a specific incident in a buyer-seller relationship provokes a self-conscious emotion in a salesperson, he/she will be challenged to balance different goals in order to conform to social boundaries and expectations. Two goals are particularly salient.

- First, salespeople seek to accomplish *in-role* performance goals. In-role performance is defined as those officially *required* outcomes and behaviors that *directly* serve the mission of the organization (Motowidlo & Van Scotter, 1994). Among other things, in-role performance consists of the execution of effective sales presentations. It also includes the ability to relate meaningfully to customers and build long-term relationships with them. In the end, the execution of influential sales presentations and the quality of salesperson-customer relationships are presumed to contribute to the sales objectives of the firm (Behrman & Perreault, 1984).
- Second, salespeople often seek to attain *extra-role* performance goals or perform citizenship behaviors (Morrison, 1994). Extra-role performances are defined as *discretionary* behaviors on the part of salespeople that *indirectly* influence the effective functioning of an organization without necessarily influencing a salesperson's own in-role performance (e.g., MacKenzie, Podsakoff, & Fetter, 1991). They are not part of normal job descriptions. Examples are willingness to help colleagues who have heavy workloads, making a point to be courteous to others, avoiding creating problems with colleagues, and volunteering for and attending committee meetings.

Given the social context and the role that self-construals play in self-regulating self-conscious emotions, the way salespeople self-regulate their emotions often has social benefits as well as social costs (Fessler, 2007). For instance, when salespeople feel ashamed, they might withdraw, procrastinate, avoid contact with the significant other who provoked the shame, or lose creativity. However, they might also be invigorated to work harder. The conditions leading to positive and negative consequences of self-regulation are explored below.

SHAME AND PRIDE SYSTEMS ACROSS CULTURES

In what follows, we describe the shame system as is introduced by Bagozzi et al. (2003) and the pride system as introduced by Bagozzi, Belschak, Verbeke, and Gavino (2008).

THE SHAME SYSTEM ACROSS CULTURES

In our first study, conducted in the Netherlands and the Philippines, we focused on the primary identity appraisals involved in shame and how they translate (via secondary identity appraisals) into

action tendencies, motivation, and goal achievement (in-role and extra-role performance). Shame in our study was induced by use of scenarios wherein a customer made the salesperson feel shame for an action he took, and salespersons were asked to put themselves in the place of the protagonist.

We conceptualized the primary identity appraisal for shame as consisting of two general dimensions: self-related cognitions and awareness of one's own physiological changes. First, self-related cognitions accompanying the experience of shame reflect ways in which one sees the self as object (Barret, 1995) that translates into a real or imagined sense that others are scrutinizing oneself (hence called *self-focused attention*). Typically, such self-conscious thoughts are exaggerated; for instance, when experiencing shame, the salesperson may feel exposed by a customer as incompetent. As mentioned above, self-related cognitions often harbor thoughts that one has not met or cannot meet the expectations of significant others or an idealized "other" (*belief that the core self is threatened*). The core self is the set of personal attributes, attitudes, plans, values, and goals that a person views as self-defining and guiding one's actions. In the literature, such thoughts are sometimes called *negative self-categorizations* (Fischer & Tangney, 1995, p. 9; Lazarus & Lazarus, 1994, p. 190).

Second, there is the awareness of one's own bodily sensations during a shame episode, which might include feeling a bit shaky, dizzy, edgy, or fidgety (hence called *physiological symptoms*). As Fischer and Tangney (1995, p. 7) suggest, self-conscious emotions "seem to wash over us" and so interfere with and take priority over normal attention processes and task-related thoughts. Gruenewald, Dickerson, and Kemeny (2007) show that shame triggers the hypothalamus, pituitary, and adrenal (HPA) system, because it causes the release of corticosteroids, hormones that are also released when people experience psychosocial stress. As a consequence, people develop submissive behaviors (e.g., Gilbert, 2007; Lewis, 2007) or become prone to take risks (Fessler, 2007).

In our study, we observed that shame makes salespeople sensitive to one's own physiological changes, and this affects the way in which salespeople interact with customers (an instance of secondary identity appraisals). First, shame might involve "engagement in protective actions" (such as avoiding personal connections with customers, which in turn hampers mutual understanding). Second, as salespeople experience shame, they turn their attention inward (the object of focus becomes the self), because coping with shame requires self-regulatory resources (e.g., Baumeister, 1999). In other words, space for procedural memory for the customer becomes diminished (Weitz, Sujan, & Sujan, 1986). The turning of attention inward also hampers the ability of the salesperson to adapt to the ongoing sales interaction (which is exemplified by the salesperson's inability to vary selling styles as needed from situation to situation) (Weitz et al., 1986).

The effects of self-related cognitions and awareness of physiological symptoms on protective actions and adaptation and on performance were found to vary in the study by Bagozzi et al. (2003), depending on self-construals. In particular, opposite effects were found for salespeople in independent-based versus interdependent-based cultures. The differences were due to differences in threats to the self: the core or personal self in the former case, and the presented or social self in the latter. Noting Figure 23.2, let us consider why these differences occurred.

Markus and Kitayama (1991, p. 234) point out that people from independent-based cultures focus on personal characteristics and achievements and attempt to stand out positively from others. When shamed, people from independent-based cultures find their core self diminished because they feel they have not met the standards and expectations of significant others. Their felt need is to protect the core self that is under threat in a shame episode, and one way to do this is to physically withdraw from a face-to-face situation, or if this is not possible, to psychologically withdraw in the sense of avoiding eye contact, experiencing a disruption in thinking and communication and, in general, wanting to escape and hide. By contrast, people from interdependent-based cultures define themselves by their relationships with others. When shamed, people from interdependent-based cultures face a threat to their social self and attempt to repair the relationship. The result of felt shame for people in independent-based cultures is the initiation of protective actions (avoidance, withdrawal, procrastination) and the disruption of adaptive resource utilization. Protective actions and lowered adaptive resource utilization disrupt achievement motivation and work-related effort, negatively

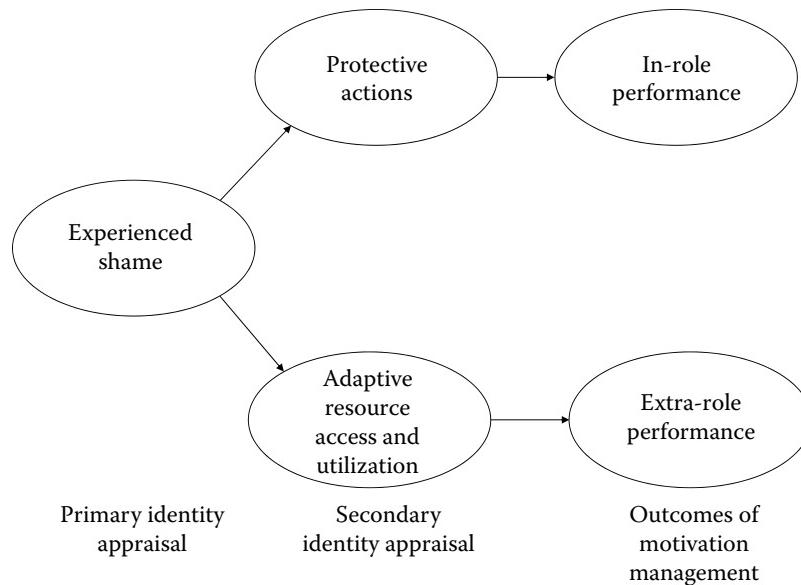


FIGURE 23.2 The shame system.

impact interpersonal communication and relationship building, and thus lead to a breakdown in relationships with others. For salespeople, this eventually leads to lower performance. The result of felt shame for people in interdependent-based cultures is the avoidance of taking protective actions, experiencing no or little disruption in adaptive resource utilization, and in general, engaging in efforts at making amends to the threatened social self and relationships with others. Indeed, felt shame by people in interdependent-based cultures, at least for low to moderate levels of felt shame, often leads to greater effort in communication and repair of relationships and more work-related motivation to achieve. This often maintains past levels of performance or even advances it.

For Dutch salespersons, felt shame as a result of interactions with customers had no effect on the conduct of altruistic behaviors benefiting the salespersons' colleagues, but shame actually increased altruistic behaviors toward colleagues for Filipinos. No threat to one's self, personal or social, occurred in relation to one's colleagues, who were often separated from one's customers in the sales setting we investigated. Thus, no direct effect of customer-induced shame might be expected on relationships with colleagues. However, in the case of Filipinos at least, threats to the salesperson-customer relationship can affect company sales and one's image in the company, and salespeople might feel that it is not sufficient to repair the relationship with the customer. By performing organizational citizenship behaviors that benefit one's colleagues, one's conscience can be assuaged, and felt social shame that might be transferred to the organization can be compensated for or avoided.

Figure 23.3 summarizes the results we found in our study: Shame affected performance indirectly through its impact on protective actions and adaptive resource utilization for Dutch salespeople, and ultimately had *negative* effects on performance. Shame affected performance directly for Filipino salespersons and had *positive* effects.

In general our findings are consistent with research on cultural differences: Self-conscious emotions have both universal and idiosyncratic characteristics (Goetz & Keltner, 2007). First, the psychometric properties of measures of experienced shame (primary identity appraisal) were largely the same across both cultures in our study. The measures were equally reliable. Second, the overall level of felt shame was significantly greater for Filipino than Dutch boundary spanners, meaning that Filipinos were more self-conscious due to differences in self-construals. Third and most important, the main differences between Dutch and Filipino salespersons was that shame had *opposite* effects

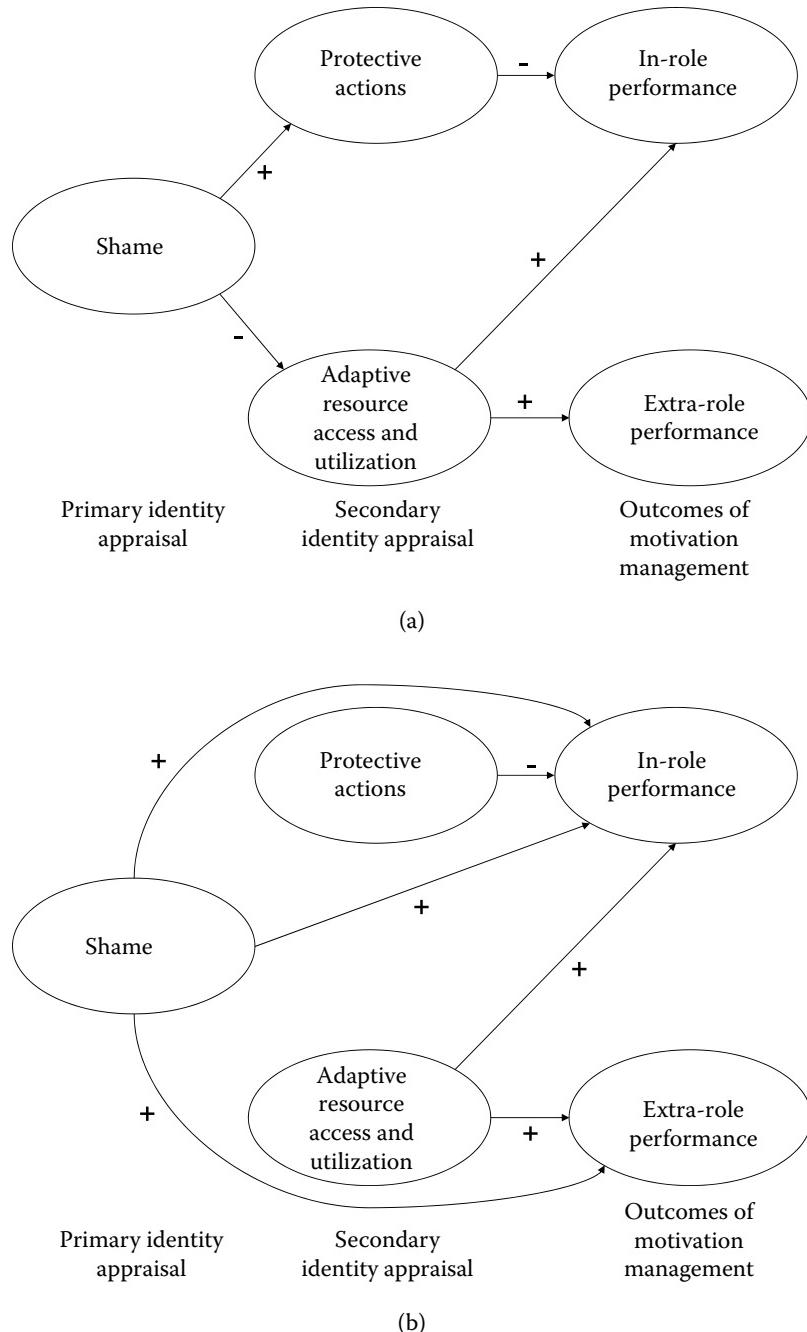


FIGURE 23.3 The shame system (a) in the Netherlands and (b) in the Philippines.

on performance. Consistent with contemporary theories of shame based on research in the West, the greater the felt shame, the lower the in-role performance (e.g., sales volume and relationship building). The experience of shame had little effect on extra-role performance experiences, probably because the shame occurred between salesperson and customer outside the home organization, and extra-role behaviors with colleagues inside the organization are not central parts of Dutch salespersons' identity systems. But for Filipinos, and contrary to the received view for the consequences of

shame in the West, the greater the felt shame, the greater both the in-role performance (e.g., relationship building) and the extra-role performance (e.g., organizational citizenship behaviors). Because the social self of Filipinos was threatened, and this constitutes a large part of how they define themselves, they responded by working to repair the perceived broken relationship with customers and worked harder, thereby enhancing in-role performance. For extra-role performance, apparently Filipinos compensated for perceived damage done to the company by increasing altruistic actions made in relation to colleagues. In sum, our functional perspective shows that one's social environment shapes the expression of shame and pride and coping with shame and pride, depending on one's self-construal (independent versus interdependent selves).

THE PRIDE SYSTEM ACROSS CULTURES

Pride is defined as the phenomenological experience of "joy over an action, thought, or feeling well done" (Lewis, 2000, p. 630) and is frequently contrasted with shame (Mascolo & Fischer, 1995). For pride, Lazarus (1991, p. 271) specifies the "core relational theme" as "enhancement of one's ego-identity by taking credit for a valued object or achievement, either our own or that of someone or group with whom we identify." Pride has both social and personal functions. Socially, pride shows others that one has achieved valued outcomes, and it promotes a striving for dominance or superiority over others (Barrett, 1995; Mascolo, Fischer, & Li, 2003). Personally, pride helps to maintain self-esteem, signal to oneself important standards, and facilitate the acquisition of information about the self as object and agent (Barrett, 1995).

Pride arises in response to *primary identity appraisals* of the personal implications of an event that has happened or is anticipated to happen to oneself (Scherer, Schorr, & Johnstone, 2001; Smith & Kirby, 2001; Tracy & Robins, 2007a). As an example, imagine a salesperson who has just attained his/her much desired sales quota and been awarded recognition as the best salesperson of the month. At such moments, the salesperson likely experiences confirmation as well as a boosting of his/her desired identity in the company.

Following our functional approach, once pride is activated, the experience of pride provides motivational force, barring contingencies discussed below, to promote behavior that confirms, perpetuates, and even enhances one's self-worth, particularly in social settings ("jolts," per Roberts, Dutton, Spreitzer, Heaphy, & Quinn, 2005), all of which is part of the *secondary identity appraisal* processes. Such jolts work as reinforcements, which stimulate ongoing action (Carver & Scheier, 1990) and "loosen" a person's information processing, resulting potentially in more creativity and flexibility (e.g., Fredrickson, 2001; Schwarz & Bless, 1991). Much as shame experiences come with activation of the HPA system, so does the pride experience. But an increase in corticosteroids is also a symptom of seeking dominance and self-assurance within a group (Gilbert, 2007; Gruenewald et al., 2007). We conjecture that the experience of pride (as oppose to shame) will lead to greater effort in selling and hence greater in-role performance (e.g., Spiro & Weitz, 1990; Sujan, Weitz, & Kumar, 1994). As the experience of pride increases and one feels the effects of this positive personal emotion, a salesperson may also wish to expansively embrace coworkers and reach out with a helping hand. Indeed, research has confirmed that individuals with positive feelings engage in altruistic and pro-social behaviors (e.g., Clark & Isen, 1982; Isen & Simmonds, 1978; Tracy & Robins, 2007b).

Pride not only stimulates behavior, but it is often self-regulated (*secondary identity appraisal*). More concretely, this involves asking "whether any given action might prevent harm, ameliorate it, or produce additional harm or benefit" (Lazarus, 1991, p. 133). In other words, when one achieves in-role goals, he/she might appraise one's achieved identity. In fact, Lazarus (1991, p. 134) captures the essence of secondary identity appraisals by use of the following metaphor, where a person figuratively asks him-/herself when experiencing pride, "What, if anything, can I do in this encounter, and how will what I do and what is going to happen affect my well-being?" More specifically, when one experiences pride, he/she evaluates and chooses a coping option to manage the expression of pride (Bonnano, 2001). Lazarus (2001, pp. 43–44) suggests that the following concrete issues might be

addressed, again speaking figuratively: “What should I do now and what are the costs and benefits of each option?” We conceive self-regulation in this regard as consisting of two components. The first consists of self-regulatory mechanisms that moderate the effects of pride on performance and the explicit strategic actions of the salesperson, which aim at controlling one’s pride so as to avoid it getting out of hand and corrupting one’s task motivation (hence called “motivation management”). These are relatively conscious, deliberative processes. A second kind of regulation is more automatic and consists of the way in which people moderate the expression of pride as a consequence of individual differences or personal dispositions (termed “proneness to pride”).

Motivation management. A key component of secondary appraisals for pride in the selling situation is the self-regulation or management of hubris. *Hubris* refers to “exaggerated pride or self-confidence” that can result in retribution and is sometimes called *pridefulness* (Lewis, 2000, p. 629). In contrast to pride, where the focus is on one’s actions (e.g., “My hard work and persistence led to my success”), under hubris, one’s successes are attributed to the global self (e.g., “I am the best salesperson in this company, and no one sells as I do”). Hubris is associated with being “puffed up” and can result in displays of grandiosity and narcissism (Morrison, 1989). Hubris obviously has negative social consequences, as it might break down communication and even interfere with the wishes and needs of others and hence lead to interpersonal conflict (Lewis, 2000, p. 630). These are obviously undesirable outcomes for sales settings.

Managing pride proneness. Hubris is clearly something to be avoided in selling situations, in which salespeople attempt to convince customers to buy products or services from them. Success depends on the salesperson’s ability to avoid or at least manage his/her pride so that it does not turn into hubris. Gross (2002) terms the general process here *response-focused self-regulation*, because a person must control emotion response tendencies, lest they get out of hand (see also Gross, John, & Richards, 2000). To refer to the specific response-focused emotion regulation applied to pride in the selling context, we use the term *motivation management*, because the person strives to self-regulate pride in order to keep up his/her motivational impetus. To our knowledge, such a self-regulatory mechanism has not been studied before. Motivation management is especially a concern when dealing with customers, because salesperson-customer relationships are directly tied to performance, but motivation management should be relatively less of an issue when relating to coworkers as opposed to customers.

We turn now to the effect of culture on organizational citizenship behaviors, as well as on adaptive resource utilization and working hard, when pride is experienced by salespeople. Because different emotion display rules exist between the Netherlands and the Philippines, we expect a dynamic modulation of the effects of experienced pride by motivation management and dispositional proneness to pride in these two cultural contexts, in accordance with our functional perspective.

In our field study, we manipulated the experience of pride by salespersons through use of scenarios where a sales manager provided a set of praises, and respondents were salespersons who were asked to put themselves in place of the protagonist in the scenarios. Felt pride then becomes an emotional state potentially subject to self-regulation in interactions with customers and with coworkers. The self-regulation of pride in these two situations will be shown below to be governed by specific cultural factors, such that the different cultural imperatives found in the Netherlands and the Philippines interact with particular demands and implications present in salesperson-customer and in salesperson-coworker relationships to yield four distinct hypotheses. Table 23.1 foreshadows these hypotheses.

We expected that Dutch salespersons, consistent with an independent self-construal, would strive to be unique, to promote personal goals, to feel self-assured, and to compare themselves with others so as to stand out. To the extent that one feels proud of his/her accomplishments, it is anticipated that pride will function to express one’s individuality and to differentiate oneself from others. In a parallel manner, we anticipated that Filipino salespersons, consistent with an interdependent self-construal, would be concerned especially with ongoing relationships and would endeavor to maintain interdependence, to perform their part of group actions on the job, to adjust to and fit into their

TABLE 23.1
The Interaction between Culture and the Social Situation in the Self-Regulation of Pride

		Social relationship with	
		Customers	Colleagues
Culture	Dutch	Pride is self-regulated because the salesperson sees the relationship as one to be “won over” or dominated, yet hubris must be controlled to avoid offending and turning off the customer.	Pride is not self-regulated because the salesperson views the relationship as an opportunity to stand out and show one’s distinctiveness in the course of helping colleagues.
	Filipinos	Pride is not self-regulated because the relationship is based on reciprocity, which requires mutual acceptance of a hierarchical ordering, where pride is sublimated directly into greater adaptation and working hard.	Pride is not self-regulated because the relationship is based on harmony or fitting in with colleagues, and helping colleagues is an expression of solidarity. Nevertheless, the effect of experienced pride on helping colleagues is moderated by the individual difference variable proneness to pride.

groups and relationships, and in general to promote group welfare. When feelings of pride emerge, it is anticipated that they will function to promote group harmony. However, as developed below, how this happens, as either a main effect or under moderation by other factors, will be guided by the particular social boundaries within which one finds oneself.

What is the role of different social boundaries or settings (particularly as manifested in interpersonal relationships) in the self-regulation of pride for Dutch and Filipino salespersons? Relationships with customers are hierarchical, with the salesperson dependent upon the customer for consummating a sale. Relationships with colleagues are relatively horizontal, with both parties more or less on equal footing. For the Dutch, interactions with others are governed primarily by the core self and how it interfaces with the particular social setting at hand.

Independent culture/horizontal relationships. When a Westerner, such as a Dutch salesperson, feels pride, this tends to be associated with personal agency and high self-esteem (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). In interactions with colleagues, pride is allowed free rein (in the sense of functioning as a main effect), and by doing good (i.e., expressing one’s pride by engaging in company citizenship behaviors) one both stands out and expresses the self as a worthy person (e.g., Clark, 2004). Indeed, when interacting with colleagues, such expressions of pride help the Dutch salesperson create a greater contrast with colleagues and contribute to verification that the core self is virtuous and worthy. Prior research has shown that salespeople in independent cultures do not down-regulate their pride in front of their colleagues (Verbeke, Belschak, & Bagozzi, 2004). Here, then, pride functions as a main effect on the conduct of company citizenship behaviors because it reinforces and promotes a positive core self.

Independent culture/hierarchical relationships. With customers, by contrast, pride in a Dutch salesperson must be self-managed so as to avoid hubris and its damaging consequences to the relationship and the chance for a sale. On the one hand, pride presses one forward to “convince the customer,” “close the deal,” and “win the sale,” all of which reflect the tendency for Westerners to show dominance/superiority (see Barrett, 1995, Table 2.1) and to use the situation to affirm one’s high self-esteem. On the other hand, the salesperson knows that coming on too strongly, showing off, or bragging can damage the relationship with the customer. Hence, the need by Dutch salespersons to self-regulate pride by motivation management (Verbeke et al., 2004). Yet, down-regulating their

pride to avoid hubris with customers is not only at odds with the cultural values of Dutch salespeople to maintain an independent self-construal (Kitayama et al., 1997), but it also has to act against their dispositions in the form of individual proneness to pride. Therefore, salespeople's dispositional proneness to pride should moderate the down-regulation process (i.e., the interaction between pride and avoiding hubris), resulting in a three-way interaction overall: When proneness to pride is high, motivation management to avoid hubris also must be high to transform pride into adaptive selling and working hard, and ultimately in-role performance.

Interdependent culture/vertical relationships. For Filipinos, interactions with others are governed primarily by the presented, social, or public self and how this interfaces with the specific social situation at hand. The *presented self* refers to the image that a person displays publicly to others, especially to comembers of one's salient groups (Crozier & Metts, 1994). One's self in the sense of the presented self is thought to arise through a process of self-definition as a function of one's group membership, where the imperative is to promote harmonious relationships within the group (Markus & Kitayama, 1991).

An important concept governing social behavior for Filipinos is that of *face*, which is defined as "the respectability and/or deference which a person can claim for himself from others, by virtue of the relative position he occupies in his social network, and the degree to which he is judged to have functioned adequately in that position as well as acceptability in his general conduct" (Ho, 1976, p. 883; see also Kim & Nam, 1998; Reeder, 1987). With respect to relationships with colleagues, the moral imperative is both to gain face and to avoid loss of face. This is done by fulfilling the duties and obligations of one's social role (because this helps one meet expectations consistent with his/her status, and neglecting to do so results in personal loss of face) and helping colleagues meet their duties and obligations (thereby lessening the chance that the failure of colleagues to meet the expectations of their social roles will become a collective, shared shame resulting in everyone's loss of face). But unlike face in Western cultures, where personal agency is tied closely to personal achievement, to self pride, and to the core self (e.g., Lewis, 2000), and where pride and high self-esteem are closely coupled (Kitayama et al., 1997), face in Eastern cultures with nonhierarchical relationships occurs within a climate of ambiguity in agency (Matsumoto et al. 1988), where individual achievements and personal pride are secondary to shared accomplishments and collective pride. Indeed, when one meets social expectations and attains success, honor is brought to the group. One comes to attribute his/her own accomplishments not so much to the self but rather as consequences of the group and relationships one has with comembers. Thus, when success occurs, it is not to be expressed in personal pride, per se, but rather in praise of colleagues; and one self-regulates one's own pride so as to promote harmony and to fit in better. Company citizenship behaviors, then, become vehicles for managing one's pride in socially acceptable ways, removing the necessity for motivation management actions. But this should happen the more that one is prone to feel pride. Hence the self-regulatory role of this disposition. Cultural norms press Filipinos not to express pride, nor even to feel proud, per se, for personal accomplishments (because this tends to make the person stand out and to make it harder to fit in). The effect is to disconnect the experience of personal pride from motivation. However, a disposition to feel pride should counteract such tendencies. Thus, Filipinos with high (versus low) proneness to pride should be better able to feel pride and express it by transforming it into company citizenship behaviors (i.e., pride stimulated by the supervisor bears fruit for the group, the more the person is prone to feel pride).

Interdependent culture/hierarchical relationships. With respect to the relationships of Filipino salespeople with customers, the nature of face is quite different than with colleagues. Such hierarchical relationships are governed by the norm of reciprocity (Mao, 1994) rather than the need to fit in. That is, the salesperson curries favor and a sale from the customer in return for respect and deference, over and above the commercial aspects of the exchange manifest in qualities of the product or service. Stability in the relationship, which both parties often wish to sustain over a long period of time because of switching costs in establishing new sales partners, results in harmonious interdependence to the extent that the customer and salesperson accept the disparity in status in

their roles and act accordingly in coordinated, mutual ways. This is in contrast to the relationship between customers and salespersons in the Dutch culture where, despite the status disparity, the salesperson strives to win the sale by aggressively convincing the customer and getting him/her to yield to the acumen and skill of the salesperson, so to speak. In short, pride for Filipinos when relating to customers is not self-regulated (and thus not moderated by motivation management) but rather is directly transformed into higher in-role performance (i.e., sales) to fulfill the reciprocity called for by the role and needed to build a balanced hierarchical relationship. Furthermore, and similar to feelings of pride in horizontal relationships, cultural norms press Filipinos not to feel and express personal pride. We therefore do not expect proneness to pride to moderate the effect of felt pride on adaptive resource utilization and on working hard.

Figure 23.4 summarizes the findings (see Bagozzi et al., 2008). We found that the effect of pride on in-role performance for Dutch salespersons is self-regulated so as to avoid expressions of excessive pride in front of customers. Although salespersons approach customers in the Netherlands in a more-or-less egalitarian manner, they realize that hubris can disrupt communication and thwart a sale, so they consciously regulate their felt pride. Moreover, this occurs to a greater extent, the greater the felt dispositional proneness to pride (hence a three-way interaction effect of motivation management, pride proneness, and intensity of felt pride on in-role performance). Pride is not self-regulated by Dutch salespersons when they interact with colleagues. In this case, Dutch salespersons express their pride unfettered so as to stand out and show off their selling prowess. For Filipinos, pride is not self-regulated when dealing with customers; rather the transaction is under mutual adjustment effects in the hierarchical role relationship, such that salespeople assume a deferential role and give respect so as to curry favor from the higher status customer, and face is maintained for both parties. Pride here has main effects on in-role performance, yet does not get out of hand because Filipinos avoid excessive public displays of pride. When relating with colleagues, Filipinos do not consciously regulate their expressed pride, but instead, their natural dispositions for moderation or modesty

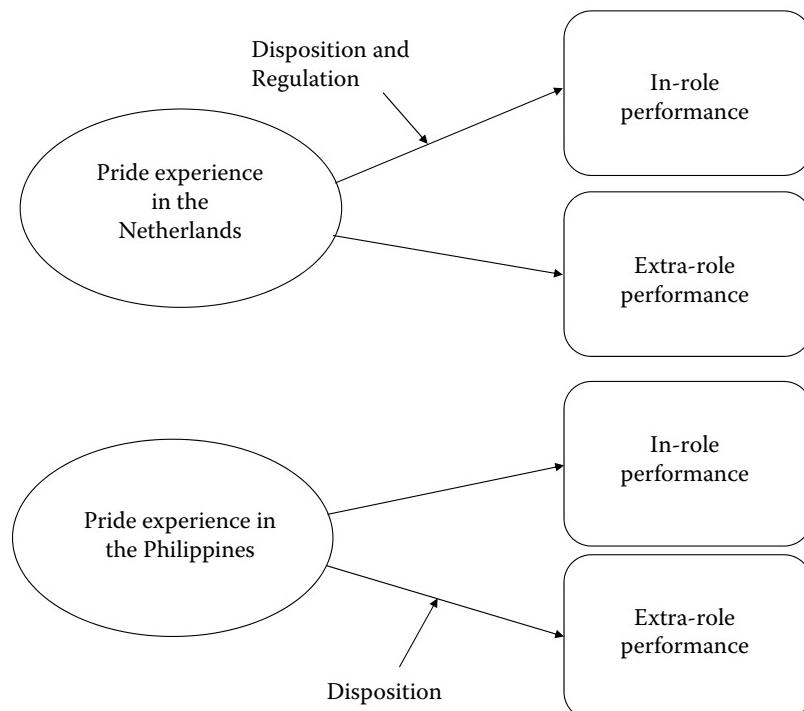


FIGURE 23.4 The pride system in the Netherlands and the Philippines.

permit pride to be regulated by individual differences in proneness to pride for the low to moderate levels of felt experienced pride expected in these selling situations (hence an interaction between pride proneness and intensity of felt pride on extra-role performance).

CONCLUSIONS

Tracy and Robbins (2007a, p. 8) argue that if emotions are defined in terms of processes, then “questions about individual and cultural differences need not be about whether the emotion is the same or different, experienced or not experienced, or important or not important in different individuals or cultures, but rather whether (and how) the underlying process varies.” Such a framework promotes a more explanatory and less descriptive approach. In our work, we considered self-conscious emotions as processes (self-conscious emotional systems), and focused on specific social contexts to better understand how self-conscious emotions are patterned so as to function successfully in such contexts. We are aware of no studies that have taken this perspective to date. We also considered how self-conscious emotional systems relate uniquely to self-construals (culture). Ultimately, by gaining an understanding of self-construals and how they affect primary and secondary identity appraisals, as well as goal achievement, it was possible to discover how culture impacts emotional systems.

Underlying our perspective is a social functional approach to the study of self-conscious emotional systems (e.g., Keltner & Haidt, 1999). Emotions function to shape outcomes with benefits, as well as costs, for people who act within strong social systems with specific social boundaries, as our respondents did as members of organizations selling financial products and services to customers. Emotions might even be under strategic control to a certain extent for those wishing to influence the behavior and outcomes of others. Sales managers, for example, may use shame or pride to influence salespeople under their supervision, and salespeople might employ tactics instilling small amounts of shame or pride in customers to produce desired effects.

The findings in our study showed that in interdependent-based cultures, the Philippines in our case, shame facilitated in-role and extra-role performance. For independent-based cultures, the Dutch in our case, shame inhibited performance.

Pride also functioned differently in both cultures and was subject to complex self-regulation. Pride became a target of self-regulation for Dutch salespeople interacting with customers because they wished to prevent it from turning into hubris and offending customers. Pride was not self-regulated by Dutch salespeople when interacting with colleagues because they freely express their pride so as to stand out. Pride was secondary for Filipinos when interacting with customers because the salesperson-customer relationship is rather hierarchical, with the salesperson assuming a deferential role so as to curry favour with the customer and thereby instill reciprocity. Pride here for the salesperson has a direct, main effect on motivation to work hard within the context of the hierarchical relationship. For Filipinos interacting with colleagues, pride is moderated by their individual disposition to feel pride. In other words, the performance of organizational citizenship behaviors on behalf of colleagues increases as felt pride in one’s performance increases, to the extent that the salesperson scores high in the disposition of pride proneness.

Shame and pride thus play complex and different roles in performance, as a function of independent-based versus interdependent-based self-construals. The interplay between other self-conscious emotions (envy, jealousy, embarrassment, guilt, gratitude) and different self-construals remain intriguing venues for future study.

REFERENCES

- Badaracco, J. L. (2006). *Questions of character*. Boston: Harvard Business School.
- Bagozzi, P., Belschak, F., Verbeke, W., & Gavino, J. C. (2008). *Cultural differences in the self-regulation of pride and its effects on adaptability, effort, and organizational citizenship behaviors: The case of sales-people in the Netherlands and the Philippines*. Unpublished manuscript.

- Bagozzi, R., Verbeke, W., & Gavino, J. C. (2003). Culture moderates the self-regulation of shame and its effects on performance: The case of salespersons in the Netherlands and the Philippines. *Journal of Applied Psychology*, 88, 219–233.
- Barrett, K. C. (1995). A functionalist approach to shame and guilt. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions* (pp. 25–63). New York: Guilford.
- Baumeister, R. F. (1995). The need to belong: Desire for interpersonal attachment as a fundamental human motivation. *Psychological Bulletin*, 21, 1256–1268.
- Behrman, D. N., & Perreault, W. D. (1984). Measuring the performance of salespersons. *Journal of Business Research*, 10, 355–370.
- Bonanno, G. A. (2001). Emotion self-regulation. In T. J. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 251–285). New York: Guilford.
- Bourdieu, P. (1993). *Sociology in question*. London: Sage.
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19–35.
- Clark, C. (2004). Emotional gifts and “you first” micropolitics: Niceness in the socioemotional economy. In A. Manstead, N. Frijda, & A. Fischer (Eds.), *Feelings and emotions: The Amsterdam symposium* (pp. 402–421). Cambridge, UK: Cambridge University Press.
- Clark, M. S., & Brissette, I. (2000). Relationship beliefs and emotion: Reciprocal effects. In N. H. Frijda, A. S. R. Manstead, & S. Bem (Eds.), *Emotions and beliefs: How feelings influence thoughts* (pp. 212–240). Paris: Cambridge University Press.
- Clark, M. S., & Isen, A. M. (1982). Toward understanding the relationship between feeling states and social behavior. In A. H. Hastorf & A. M. Isen (Eds.), *Cognitive social psychology* (pp. 73–108). New York: Elsevier.
- Crozier, R. W., & Metts, S. (1994). *Facework*. Newbury Park, CA: Sage.
- Davis, J. D. (1979). Broadening the homeostatic concept. *Behavioral and Brain Sciences*, 1, 104–105.
- Fessler, D. M. T. (2007). From appeasement to conformity: Evolutionary and cultural perspectives on shame, competition, and cooperation. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 174–193). New York, NY: Guilford.
- Fischer, K. W., & Tangney, J. P. (1995). Self-conscious emotions and the affect revolution: Framework and overview. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions* (pp. 3–24). New York: Guilford.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.
- Frijda, N. H. (1986). *The emotions*. Cambridge, UK: Cambridge University Press.
- Gasper, K., & Clore, G. L. (2000). Do you have to pay attention to your feelings to be influenced by them? *Personality and Social Psychology Bulletin*, 26, 698–711.
- Gilbert, P. (2007). The evolution of shame as a marker for relationship security: A biopsychosocial approach. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 283–309). New York: Guilford.
- Goetz, J. L., & Keltner, D. (2007). Shifting meanings of self-conscious emotions across cultures: A social-functional approach. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 153–173). New York: Guilford.
- Gross, J. J. (1999). Emotion and emotion regulation. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality*, 2nd edition (pp. 525–552). New York: Guilford.
- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39, 281–291.
- Gross, J. J., John, O. P., & Richards, J. M. (2000). The dissociation of emotion expression from emotion experience: A personality perspective. *Personality and Social Psychology Bulletin*, 26, 712–726.
- Gruenewald, T. L., Dickerson, S. S., & Kemeny, M. E. (2007). A social function for self-conscious emotions: The social self-preservation theory. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 68–90). New York: Guilford.
- Hess, U., & Kirouac, G. (2000). Emotion expression in groups. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions*, 2nd edition (pp. 368–381). New York: Guilford.
- Ho, D. Y. F. (1976). On the concept of face. *American Journal of Sociology*, 81, 867–884.
- Hochschild, A. (1983). *The managed heart: The commercialization of human feeling*. Berkeley: University of California Press.
- Hofstede, G. (2001). *Culture's consequences*. 2nd edition. Thousand Oaks, CA: Sage.
- Hsu, F. L. K. (1949). Suppression versus repression: A limited psychological interpretation of four cultures. *Psychiatry*, 12, 223–242.

- Isen, A. M., & Simmonds, S. F. (1978). The effect of feeling good on a helping task that is incompatible with good mood. *Social Psychology*, 41, 345–349.
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition and Emotion*, 13, 505–522.
- Kim, J. Y., & Nam, S. H. (1998). The concept and dynamics of face: Implications for organizational behavior in Asia. *Organizational Science*, 9, 522–534.
- Kitayama, S., Markus, H. R., & Matsumoto, H. (1995). Culture, self, and emotion: A cultural perspective on “self-conscious” emotions. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions* (pp. 439–464). New York: Guilford.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, 72, 1245–1267.
- Lagatutta, K. H., & Thompson, R. A. (2007). The development of self-conscious emotions: Cognitive processes and social influences. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 91–113). New York: Guilford.
- Lazarus, R.S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lazarus, R. S. (2001). Relational meaning and discrete emotions. In K. R. Scherer, A. Schorr, & T. Johnston (Eds.), *Appraisal processes in emotions: Theory, methods, research* (pp. 37–65). Oxford, UK: Oxford University Press.
- Lazarus, R. S., & Lazarus, B. N. (1994). *Passion and reason*. New York: Oxford University Press.
- Lewis, M. (2000). Self-conscious emotions: Embarrassment, pride, shame, and guilt. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions*, 2nd edition (pp. 623–636). New York: Guilford.
- Lewis, M. (2007). Self-conscious emotional development. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 134–152). New York: Guilford.
- Li, J., & Fischer, K. W. (2007). Respect as self-conscious emotion in European Americans and Chinese. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 224–244). New York: Guilford.
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons’ performance. *Organizational Behavior and Human Decisions Processes*, 50, 123–150.
- Mao, L. R. (1994). Beyond politeness theory: “Face” revisited and renewed. *Journal of Pragmatics*, 21, 451–486.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Mascolo, M. F., & Fischer, K. W. (1995). Developmental transformations in appraisals for pride, shame, and guilt. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 64–113). New York: Guilford.
- Mascolo, M. F., Fischer, K. W., & Li, J. (2003). Dynamic development of component systems of emotions: Pride, shame, and guilt in China and the United States. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective states* (pp. 375–408). Oxford, UK: Oxford University Press.
- Matsumoto, D., Kudoh, T., Scherer, K., & Wallbott, H. (1988). Antecedents of and reactions to emotions in the United States and Japan. *Journal of Cross-Cultural Psychology*, 19, 267–286.
- Mesquita, B. (2001). Culture and emotion. In T. J. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 214–250). New York: Guilford.
- Morrison, A. P. (1989). *Shame: The underside of narcissism*. Hillsdale, NJ: Academic Press.
- Morrison, E. W. (1994). Role definitions and organizational citizenship behavior: The importance of the employee’s perspective. *Academy of Management Journal*, 37, 1543–1567.
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79, 475–480.
- Reeder, J. A. (1987). When West meets East: Cultural aspects of doing business in Asia. *Business Horizons*, 30, 69–74.
- Roberts, L. M., Dutton, J. E., Spreitzer, G. M., Heaphy, E. D., & Quinn, R. E. (2005). Composing the reflected best-self portrait: Building pathways for becoming extraordinary in work organizations. *Academy of Management Review*, 30, 712–736.
- Sabini, J., & Silver, M. (1997). In defense of shame: Shame in the context of guilt and embarrassment. *Journal of the Theory of Social Behaviour*, 27, 1–15.

- Salovey, P., Bedell, B. T., Detweiler, J. B., & Mayer, J. D. (2000). Current directions in emotional intelligence research. In M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of emotions*, 2nd edition (pp. 504–520). New York: Guilford.
- Scherer, K. R., Schorr, A., & Johnstone, T. (2001). *Appraisal processes in emotion: Theory, methods, research*. Oxford, UK: Oxford University Press.
- Schwarz, N., & Bless, H. (1991). Happy and mindless, but sad and smart? The impact of affective states on analytic reasoning. In J. P. Forgas (Ed.), *Emotion and social judgment* (pp. 55–71). Oxford, UK: Pergamon.
- Shweder, R. A., & Bourne, E. J. (1984). Does the concept of the person vary cross-culturally? In R. A. Shweder & R. A. LeVine (Eds.), *Culture theory: Essays on mind, self, and emotion* (pp. 158–199). Cambridge, UK: Cambridge University Press.
- Smith, C. A., & Kirby, L. D. (2001). Toward delivering on the promise of appraisal theory. In K. R. Scherer, A. Schorr, & T. Johnston (Eds.), *Appraisal processes in emotion: Theory, methods, research* (pp. 121–138). Oxford, UK: Oxford University Press.
- Spiro, R. L., & Weitz, B.A. (1990). Adaptive selling: Conceptualization, measurement, and nomological validity. *Journal of Marketing Research*, 27, 61–69.
- Sujan, H., Weitz, B., & Kumar, N. (1994). Learning orientation, working smart, and effective selling. *Journal of Marketing*, 58, 39–52.
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). What's moral about the self-conscious emotions? In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 21–37). New York: Guilford.
- Tracy, J. L., & Robins, R. W. (2007a). The self-conscious emotions: A cognitive appraisal approach. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 3–20). New York: Guilford.
- Tracy, J. L., & Robins, R. W. (2007b). The nature of pride. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 263–282). New York: Guilford.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C., Bontempo, R., Villareal, M. J., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self-group relationships. *Journal of Personality and Social Psychology*, 54, 323–338.
- Verbeke, W., Belschak, F., & Bagozzi, R. (2004). The adaptive consequences of pride in personal selling. *Journal of the Academy of Marketing Science*, 32, 386–402.
- Weitz, B. A., Sujan, H., & Sujan, M. (1986). Knowledge, motivation, and adaptive behavior: A framework for improving selling effectiveness. *Journal of Marketing*, 50, 174–191.
- Westphal, M., & Bonanno, G. A. (2004). Emotion self-regulation. In M. Beauregard (Ed.), *Consciousness, emotional self-regulation, and the brain* (pp. 1–34). Amsterdam: John Benjamins.

24 A Cultural Analysis of Harmony and Conflict

Toward an Integrated Model of Conflict Styles

Kwok Leung and Frances P. Brew

The gentleman agrees with others without being an echo. The small man echoes without being in agreement.

Confucius, translated by Lau, 1983

君子和而不同，小人同而不和 《子路篇》

Social harmony is now a major national policy in China, as President Hu Jintao has made repeated calls to build a harmonious society in recent years. The rise of harmony as an overarching national goal in China is by no means coincidental. It has been a major cultural value in China since Confucius accorded *he*, or harmony, a central role in his social philosophy about 2500 years ago (e.g., Chen, 2001, 2002; Huang, 1999). “Harmony” is the English translation of *he*, although *he* has a richer connotation, including such meanings as “on good terms with each other,” “gentle, mild,” and “peace” (A Modern Chinese-English Dictionary, 1988). The importance of harmony to Chinese people is also reflected by the numerous traditional Chinese sayings with a harmony theme, including “Harmony is valuable” (和為貴) and “If the family lives in harmony, all affairs will prosper” (家和萬事興).

We note that harmony is also a central value in other East Asian countries that have been under the influence of Confucianism. The word *wa* is used to denote harmony in Japan, and the word *inhwa* in Korea, but the same Chinese character 和 is used in all three countries. Given the prominence of harmony in Chinese culture, it is not surprising that Chinese approach interpersonal disagreements and social clashes with a harmony perspective (e.g., Gabrenya & Hwang, 1996; Huang, 1999). In contrast, disagreements and clashes are typically viewed in the West from a conflict framework (e.g., Deutsch & Coleman, 2000). Harmony and conflict may be regarded as the two sides of the same coin, and a synthesis of these two viewpoints is likely to shed new light on our understanding of disagreements and clashes. The primary goal of this chapter is to review and integrate the conflict and harmony frameworks from a cultural perspective, thereby identifying new directions for future research. In particular, we will discuss the underlying determining dimensions of the existing frameworks, highlight their shortcomings, and present arguments for a more comprehensive integrated model of conflict management.

WESTERN CONFLICT FRAMEWORKS

THE INTEREST PERSPECTIVE ON CONFLICT

Conflict research has a long tradition in the West, and conflicts are typically viewed as a competition with a winner and a loser (e.g., Wall & Stark, 1998). The early research (e.g., Deutsch, 1949) presented a unidimensional model of competition versus cooperation; thus, the framing of conflict in competitive terms led to the focus on outcomes or self-interest in Western conflict frameworks. After an analysis of the cultural dynamics of the U.S., Tinsley and her colleagues (e.g., Tinsley, 1998; Tinsley & Brodt, 2004) concluded that an “interest” frame guides the negotiation behaviors of Americans, who are motivated to maximize their outcomes in a conflict situation.

Given the self-interest perspective on conflict in the West, especially in the U.S., it is not coincidental that the dual-concern model (e.g., Hall, 1969; Rahim, 1983; Thomas, 1976), which developed from the unidimensional approach of competition versus cooperation, seems to be the most influential conflict framework in Western conflict literature. Although the notions of cooperativeness and interpersonal consideration provide part of the conceptual basis for the dual-concern model, these interpersonal constructs are assumed to be captured by the concern for the *outcomes* of the other party in a conflict situation and not the relationship per se. The operationalization of the dual-concern model is therefore based entirely on outcome concerns (e.g., Pruitt & Carnevale, 1993; Rahim, 1983; Thomas, 1976). Figure 24.1 shows a typical dual-concern model, that of Rahim (1983). Note that the *integrating* style (high concern for self and other) is expected to be one where overt problem solving, debate, and discussion will take place; *dominating* (high concern for self and not other) is expected to involve aggressive and competitive tactics; *compromising* (moderate concern for self and other) is measured as give and take; *obliging* (high concern for other but not self) is conceptualized as giving in or allowing concessions; and *avoiding* (low concern for self and other) is defined as avoiding discussion and staying away from disagreements.

Although in practice Rahim’s inventory measuring the styles is valid, it is simply not clear from the model why people choose the styles they do. For example, why would people avoid conflict because of low concern for self and other’s outcomes? Avoiding conflict actually takes some skill and vigilance, so why would one bother? Western researchers themselves are unclear about what “concern for other” actually entails. In some experimental tests cited by Pruitt and Carnevale (1993), high other-concern was operationalized by either giving the negotiators a gift to put them in a good mood or telling them that they would have to cooperate in a future study. The first appears to be relying on emotion to bring about kind concern for the other party, whereas the second is relying on self-interest being tied to the other party.

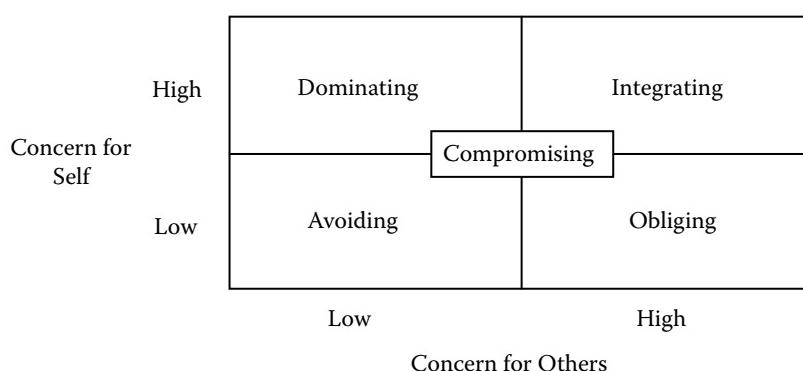


FIGURE 24.1 The dual-concern model adapted from Rahim (1983).

THE DUAL-CCONCERN MODEL IN ASIA

The dual-concern model has been frequently applied in Asia, and its applicability is often supported (e.g., Kirkbride, Tang, & Westwood, 1991; Morris et al., 1998). However, the confirmation of the five conflict styles stipulated in the dual-concern model in Asia does not mean that the underlying dynamics are similar across the West and the East. A case in point is the common finding that conflict avoidance is more frequent in East Asia than in the West. It is well documented that Chinese people display more conflict avoidance than Americans (Friedman, Chi, & Liu, 2006; Tjosvold & Sun, 2002). In Japan, consensus is important, and informal and indirect negotiation is preferred over direct confrontation (Ohbuchi & Takahashi, 1994). In fact, the Japanese legal system tends to discourage people from publicly pursuing conflicts in court (Ohbuchi, 1998). In Korea, similar values predominate, and Cho and Park (1998) argued that group harmony is the most important managerial value in Korean firms.

A critical question may be raised. Does the conflict avoidance behavior of East Asians reflect a low concern for their own outcome as depicted in the dual-concern model? The inadequacy of the conceptual framework of the dual-concern model led Chinese researchers in particular to propose their own models based on a harmony perspective.

HARMONY FRAMEWORKS BASED ON CHINESE CULTURE

We begin the review of Chinese harmony frameworks with the model proposed by Hwang (1997–8). Hwang proposed two dimensions, *ignoring harmony/maintaining harmony* and *pursuing goal/discard goal*, for understanding disagreements and clashes. Crossing these two dimensions results in five conflict management strategies: *confrontation* (pursue goal, ignore harmony), *obey publicly/disobey privately* (pursue goal, maintain harmony), *compromise* (moderately pursue goal, moderately maintain harmony), *endurance* (discard goal, maintain harmony), and *severance* (discard goal, ignore harmony). Note that his styles of *obey publicly/disobey privately*, *endurance*, and *severance* are rarely discussed in Western conflict literature.

Chen (2001, 2002) argued that harmony is a major goal for Chinese and that the ability to interact harmoniously is a core component of communication competence in Chinese culture. Chen regards harmony as involving the pursuit of equilibrium and the sustenance of hierarchical relationships by being sincere and honest. Generally speaking, Chen viewed harmony-seeking behavior in a positive light.

In Hwang and Chen's conceptualizations, harmony is a molar construct. In contrast, Leung (1997, p. 644) proposed the distinction of two harmony motives: *Disintegration avoidance* refers to "avoiding actions that will strain a relationship and lead to its weakening and dissolving," whereas *harmony enhancement* refers to "engaging in behaviors presumed to strengthen the relationships among the interactants." Disintegration avoidance involves a passive approach by minimizing actions and events that may disrupt a relationship, and the concern for self-serving goals is salient. In contrast, harmony enhancement involves active efforts to promote the quality of a relationship and is associated with a preference for harmony as an intrinsic ideal. Based on qualitative research in Taiwan, Huang (1999) independently identified two major types of harmony, *genuine* and *surface*, which correspond to harmony enhancement and disintegration avoidance, respectively.

Leung, Koch, and Lu (2002) crossed these two harmony motives to generate four harmony styles (see Figure 24.2). *Balancing* reflects a high emphasis on both disintegration avoidance and harmony enhancement. That is, the person has self-interest involved in the relationship but also feels moral obligation to enhance the relationship for its own sake. We speculate that balancing is likely to be related to a constructive diplomacy approach because of its equal emphasis on disintegration avoidance and harmony enhancement, and is likely to end in a compromise result. However, we argue that this style indicates a deeper and more complex motivation than the moderate concerns of the dual-concern model and that a more subtle approach is required in the bargaining process.

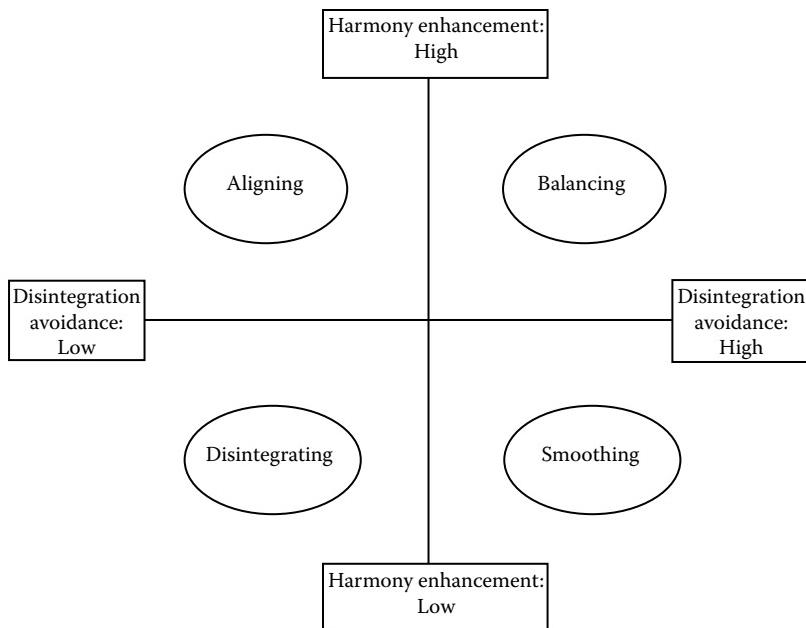


FIGURE 24.2 A dualistic model of harmony (adapted from Leung et al., 2002).

Smoothing reflects a high emphasis on disintegration avoidance and a low emphasis on harmony enhancement. This style is related to the phenomenon of conflict avoidance commonly observed in Chinese societies (e.g., Leung, 1997), one form of which is the style of *obey publicly/disobey privately* described by Hwang (1997–8). This style suggests an active attempt to protect one's interests by conflict avoidance in public while seeking one's goals privately. This style could be termed as *superficial compliance*, in which one appears to comply as required, but covertly does something else.

Aligning refers to a high emphasis on harmony enhancement and a low emphasis on disintegration avoidance, which is regarded by Leung et al. (2002) as close to the notion of harmony in the Confucian classics. Contrary to popular belief, the Confucian notion of harmony is concerned with the need to maintain a mutually respectful relationship and a common concern for humanity and morality, but not with the need to avoid disagreement and confrontation for arriving at uniform views. Thus, this style is likely to involve discussion and problem solving similar to that espoused by the integrating style in the dual-concern model, so that values and interests become aligned rather than in opposition.

Finally, *disintegrating* refers to a low emphasis on both disintegration avoidance and harmony enhancement. Disintegrating may be related to dominating behavior as defined by the dual-concern model, but it may also be related to ignoring, because of the de-emphasis of both harmony motives. People who do not care much about harmony are likely to pay little attention to their relationships with other people, leading either to destructive confrontation or a dismissal of disagreements and clashes as unimportant. Ignoring is distinguished from avoiding in that people avoid confrontation by not offending or upsetting the other person, whereas people with an ignoring style are unconcerned with the feelings of the other, and may actually cause offense when others' concerns are summarily dismissed.

It is clear that the harmony models reviewed above point to a negative answer to the question posed earlier, namely, whether conflict avoidance reflects a low concern for self-outcome as postulated by the dual-concern model. If the concern for harmony is superficial or reflects the motive of disintegration avoidance, those who avoid conflict are actually concerned about their outcomes, but they see the backlashes associated with a confrontational approach as much worse than the cost of

conflict avoidance. As Friedman, Chi, and Liu (2006) showed, the preference for conflict avoidance by Chinese was partly attributable to the perception that a direct approach would hurt a relationship.

THEORETICAL INTEGRATION OF HARMONY AND CONFLICT

There is an obvious need to integrate the conflict and harmony frameworks for a full understanding of the conflict behavior of Chinese people. In fact, such an integrated model will also shed new light on our understanding of conflict behaviors in diverse cultures.

A YIN-YANG MODEL OF CONFLICT STYLES

The second author (Brew, 2007) designed a model based on harmony dualism and the cooperation versus competition theory of conflict proposed by Deutsch (1949) and later expanded by Tjosvold (1998; Tjosvold & van de Vliert, 1994). Although the oppositional forces of the cooperation versus competition dialectic are also the basis for the dual-concern models, Brew (2007) recognized that people of any culture were likely to be caught in the tension between wanting to be confrontational and needing to preserve harmonious relations. Different contexts, such as cultural upbringing, workplace, preconflict status of the relationship, in-group/out-group, and so forth, could color the tension, but, as in the philosophy of yin and yang, a balance would need to be achieved. Hence, Brew crossed a harmony-conflict dialectic with the value dialectic (instrumental needs versus ideal aspirations) underlying Leung et al.'s (2002) harmony model to arrive at the model in Figure 24.3. The four conflict styles predicted by the motivational domains are not necessarily static responses but might vary along the axes during the one conflict episode as different tensions play out for the protagonists.

Ideal conflict involves a moral stance in regard to one's self-interest and those of the other party and favors a direct approach to the conflict. It is conceptualized as *constructive controversy*, where one uses open debate, discussion, and argument, taking account of and respecting the other party's point of view without losing sight of one's own goals. This style resembles the cooperative goals ideal of Tjosvold (1998) and the aligning behavior proposed by Leung et al. (2002) involving high levels of engagement and harmony enhancement. Instrumental conflict involves *destructive confrontation*, in which one is in competition with the other and win-lose is favored. Tactics used are the aggressive, argumentative, close-minded behavior of the competition style (Tjosvold, 1998),

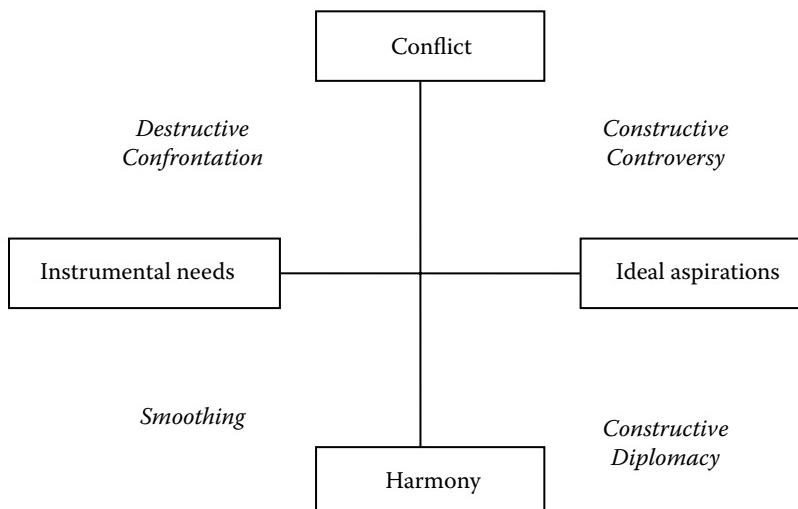


FIGURE 24.3 The Yin and Yang model of harmony (adapted from Brew, 2007).

resulting in relationship disintegration (Leung et al., 2002), confrontation (Hwang, 1997–8), and fighting and contending (Huang, Jone, & Peng, 2007). Ideal harmony also involves a moral stance, but a more subtle path between approach and avoid tactics is desired. It is conceptualized as *constructive diplomacy*, where giving face and being tolerant and forgiving are important. Direct and indirect communication is used, along with relationship-building tactics. It involves elements of hosing down a conflict while trying to problem solve without threatening the character of the other person. Instrumental harmony is the disintegration avoidance or *smoothing* style proposed by Leung et al. (2002), already discussed in some detail, where achieving one's own goals is perceived to be effected through the good graces of the other party. Associated behaviors comprise avoidance, withdrawal, and giving face but could also include hidden defiance as in Hwang's (1997–8) conceptualizations of obeying publicly/disobeying privately and in the notion of passive aggression. Cultural differences, such as those between collectivist Chinese and individualist Australians, would suggest that, among those with ideal aspirations, Chinese would prefer the less confrontational constructive diplomacy style with a focus on harmony, whereas Australians would opt for conflict that was open, honest, and constructive (constructive controversy). Conversely, among those with purely instrumental needs, Chinese are likely to focus on keeping the peace with smoothing tactics so that future favors are not threatened, whereas Australians are likely to focus on winning through competitive tactics with little concern for the fate of the relationship.

Some support for the validity and usefulness of the model for cross-cultural work was demonstrated by Brew, Tan, Booth, and Malik (2007) with Anglo-Australian and Chinese university students. The study measured the perceived effectiveness (ability to achieve an outcome) and appropriateness (proper behavior in a conflict) of the four styles, operationalized by four responses to a hypothetical conflict scenario. Anglos perceived constructive controversy as the most appropriate and effective, whereas Chinese perceived that smoothing was the most appropriate, but varied little on the effectiveness of all styles except for the ineffectiveness of destructive confrontation. Constructive controversy was found to enhance the relationship best for Anglos, whereas constructive diplomacy enhanced the relationship best for Chinese. Similarities between cultures were more associated with constructive diplomacy than the other styles, indicating that this style might hold the key to what underlies a good intercultural relationship.

In summary, harmony research has uncovered a few conflict styles that have not received attention in Western conflict research, in particular, superficial compliance (obey publicly/disobey privately), ignoring, and constructive diplomacy. All of these styles involve a less direct approach of dealing with conflict and, in the past, have been absorbed under the general rubric of avoiding, which has tended to be dismissed in Western conflict literature as only of value in trivial disputes. Overall, the harmony perspective is able to enrich and define the underlying framework in a manner that is lacking in the Western frameworks. Brew's (2007) attempt to integrate the two approaches was fruitful but was not able to provide a comprehensive enough coverage of both Western and Eastern models. Therefore, we propose an enlargement of this model to encompass the best of the insights from Western and Eastern perspectives.

AN INTEGRATED CONFLICT MODEL

The dualistic model of harmony is derived from the East Asian notion of harmony, whereas the dual-concern model is derived from the American context. A model with wider applicability will emerge if these two models can be integrated. In the absence of relevant empirical research, we can only speculate on how these two models can be integrated. The two dimensions of the dual-concern model are generally defined in terms of outcome, but in the theorizing preceding the formulating of this model, outcome is not the only construct proposed. In Hall's (1969) conceptualization, one dimension is concerned with the achievement of personal goals, and the other dimension is concerned with interpersonal consideration. In Thomas's (1976) theorizing, one dimension is concerned with assertiveness and the other dimension is concerned with

cooperativeness. Achieving personal goals (Hall, 1969), assertiveness (Thomas, 1976), and concern for self (Rahim, 1983) may be interpreted similarly as a focus on protecting and enhancing one's outcome. However, interpersonal consideration (Hall, 1969) and cooperativeness (Thomas, 1976) do not map onto concern for the outcome of others as conceptualized in Rahim's (1983) model. That is, concern for other is not semantically equivalent to concern for the relationship. For example, it is possible to have concern for a stranger's outcomes but have no intention of a continuing interpersonal relationship. Conversely, it is possible to have little concern for the outcome of the other person, but interdependence dictates the importance of maintaining the relationship for instrumental purposes.

We argue that the interpersonal dimension discussed by Hall and Thomas corresponds to the two harmony motives based on the dualistic model of harmony (Leung et al., 2002). However, the general interpersonal dimension that Hall and Thomas propose does not capture the nuances of the interpersonal dynamics involved. Thus, its decomposition into two harmony motives, as proposed by Leung et al.'s (2002) model, provides a more complete framework to capture the complexity of conflict behaviors. These two dimensions form the first two dimensions of the proposed integrated model. Concern for self is usually broken down into high or low. We are more clearly defining this third dimension as the importance of the outcome goal to the person, varying from high to low. We assume that people are more likely to pursue a goal of high importance by fair means or foul, whereas they have less investment in a goal of low importance and may discard the goal. Therefore, we propose a three-dimensional model with the two harmony motives intersecting with the importance of personal goal, resulting in eight different conflict styles. For a schematic description of these eight conflict styles, see Table 24.1.

Constructive diplomacy. When harmony enhancement and disintegration avoidance are both high and personal goal is important, then we propose that constructive diplomacy will be the favored

TABLE 24.1
An Integrated Model of Conflict Management

Concern for intrinsic worth of relationship	Need for relational benefits for self	Importance of personal goal	Conflict style	Outcome desired for self
High harmony enhancement	High disintegration avoidance	High	Constructive diplomacy	Compromise and balance
	Low disintegration avoidance	Low	Accommodating	Endurance
		High	Constructive controversy	Win-win and alignment
	High disintegration avoidance	Low	Concessional obliging	Intrinsic satisfaction
Low harmony enhancement		High	Superficial compliance	Overt smoothing/ covert winning
Low disintegration avoidance	Low	Avoiding	Superficial harmony	
	High	Destructive confrontation	Overt dominance and disintegration	
	Low	Ignoring	Dismissal and disintegration	

style. The style is described in the Yin-Yang model and is the one most likely to be preferred in international relations. The underlying harmony motives are consistent with the intrinsic value of good diplomatic relations with other states and instrumental needs concerned with trade and other benefits. Skill and care are needed not to strain the relationship and to negotiate interpersonal minefields to achieve a solution that not only enhances the ongoing relationship, but brings results for self from the relationship. This is most likely to result in compromise and balance and feelings of mutual benefit.

Accommodating. When harmony enhancement and disintegration avoidance are high but one's personal goal is not so important, then accommodating is likely to be preferred. Accepting a small loss is palatable to most people, and accommodation can be viewed as a simple way to promote harmony. This style results in endurance of loss of personal goal for the sake of the relationship (Hwang, 1997–8).

Constructive controversy. When harmony enhancement is high, disintegration avoidance is low, and personal goal is important, constructive controversy is likely to be salient. As described in the Yin-Yang model, this style promotes useful debate and argument focusing on finding a solution that maximizes the outcomes for both parties. As disintegration avoidance is not the main concern, there may be some friction in the process of arriving at the optimal solution, but maintaining respect for the other, being open, and keeping a focus on mutual benefit should result in an alignment of interests.

Concessional obliging. When harmony enhancement is high, disintegration avoidance is low, and personal goal is less important, then it is easy to make concessions graciously as a result of the intrinsic value associated with an enhanced relationship. As with accommodating, people can withstand a small loss. Differently from accommodating though, concessional obliging is made from a position of choice about whether to invest in discussion and debate that can involve friction or to take the accommodative stance by satisfying the needs of others.

Superficial compliance (obey publicly/disobey privately). This style, first suggested by Hwang (1997–8), is a type of avoiding behavior that is most likely when personal goals are important and the person is high on disintegration avoidance but low on harmony enhancement. The person will appear to smooth over the dispute and appease the other party with face-giving gestures, but privately will pursue her goals by covert and indirect means. Passive-aggressive behavior may also be used in which the person seeks to win by hidden competitive strategies. An extreme response could even result in Machiavellian behavior, common in workplaces and political arenas across the world, where people use unscrupulous manipulative tactics to obtain self-motivated political goals.

Avoiding. When disintegration avoidance is high and harmony enhancement is low and personal goal is less important, then people are likely to favor simple avoidance of the dispute, which entails avoiding open encounters and discussion. It may also involve smoothing, face-giving behaviors, and some degree of passive noncompliance. The result is a state of superficial harmony in order that the status quo of the relationship is maintained, although the problem may remain unsolved. The behavior is similar to that envisaged by Rahim (1983) and the other dual-concern theorists, but the underlying motivation is different.

Destructive confrontation. When both harmony enhancement and disintegration avoidance are low, but personal goals are important, the person will be tempted to use dominating and aggressive tactics in order to maximize returns with little concern for the state of the relationship postconflict. The aim is win-lose with whatever it takes. The outcome will be disintegration or severance of the relationship, if it ever existed in the first place. This style is more likely with strangers or out-group members, particularly for Chinese (Leung, 1988).

Ignoring. Ignoring or dismissing the conflict requires little effort and is likely to be favored when both disintegration avoidance and harmony enhancement are low and personal goal is not important. This style is appealing when there is no concern for the relationship status postconflict and the person is unconcerned with disintegration of a current relationship.

COMPARISON OF THE INTEGRATED MODEL AND PREVIOUS MODELS

Table 24.2 presents a summary of the fundamental dimensions of the main conflict management models from Western and Eastern perspectives, finishing with the integrated model proposed. The first column notes the model; the second column describes the dimensions that hypothetically produce varying types of conflict behavior; and the third column interprets the underlying motivation inherent in the hypothesized dimensional framework.

As noted earlier, perhaps the most outstanding conflict framework of the earlier years that is still referenced today is that of Deutsch (1949). The unidimensional view of competition versus cooperation was already popular when Deutsch applied Lewin's (1935) force field theory of "driving"

TABLE 24.2
Overview of Underlying Dimensions of Conflict Management Models

Models	Dimensions	Motivation
Force Field Model (Unidimensional)		
Deutsch (1949)	Cooperation (goals are positively linked) vs. competition (goals are negatively linked).	A tension between the two states subject to "driving" and "restraining" forces.
Dual-Concern Models (Two-dimensional)		
Hall (1969)	1. High/low concern for relationships. 2. High/low concern for personal goals.	Personal values related to interdependence and independence.
Thomas (1976)	1. High/low levels of assertiveness (attempt to satisfy own goal). 2. High/low levels of cooperativeness (attempt to satisfy other's goal).	A combination of emotions, self interest, and moral reasoning.
Rahim (1983)	1. High/low concern for self. 2. High/low concern for other.	Self and other-interest needs.
Harmony Models (Two-dimensional)		
Hwang (1997–8)	1. Pursuing/discardng personal goal. 2. Ignoring/maintaining interpersonal harmony.	Self-interest needs in the context of the relationship.
Leung, Koch, & Lu (2002)	1. High/low disintegration avoidance. 2. High/low harmony enhancement.	Instrumental and moral perspectives on the value of the relationship.
Integrative Models Yin/Yang model (Two-dimensional)		
Brew (2007)	1. Ideal/instrumental perspective. 2. Conflict/harmony.	Instrumental and moral perspectives on self-interest and the value of the relationship. (Cultural upbringing.)
Integrative model proposed in this chapter (Three-dimensional)	1. High/low disintegration avoidance. 2. High/low harmony enhancement. 3. High/low importance of personal goal.	Instrumental and moral perspectives on the value of the relationship associated with self-interest needs.

and “restraining” forces to examine the determining factors of the type of action (cooperation or competition) that people were likely to employ in a dispute.

Deutsch's approach was followed by the dual-concern models. Three of the most important are summarized in Table 24.2. As discussed before, the dual-concern models are particularly vague about “concern for other.” Although inventories stemming from these models have been successfully employed in Asian countries, Chinese theorists in particular have been concerned that the underlying conceptual framework is inappropriate and fails to adequately describe Chinese conflict management.

Two of the most prominent of the harmony models are presented in Table 24.2. Hwang (1997–8) maintained the personal goal aspect of the dual-concern model but introduced the notion of harmony as the second dimension. Harmony in the Chinese setting comes with a rich provenance of maintaining intricate and complex ties in a networked society in which face and favor determine individuals’ goals. Thus, harmony is qualitatively different from “concern for other” as stipulated in the dual-concern models, which may be anything from a transitory state based on “feel good” emotions to a moral position involving the proper treatment of other people. Hwang’s model defines five styles, some of which are startlingly different to those of the dual concern.

Leung et al.’s (2002) model focuses solely on harmony and its dualistic nature. The two dimensions in this model reflect an instrumental perspective, whereby maintaining harmony is simply a means to an end to avoid disintegration of the relationship for future personal gain, and a value or moral perspective, whereby maintaining harmony is the end in itself in order to enhance harmony between parties (see also Leung, 1997).

Brew (2007) perceived a need to integrate Western and Chinese conceptual frameworks into a single model that would be ontologically meaningful for Western and Asian samples. She borrowed the instrumental-value framework from Leung et al.’s model and crossed it with a harmony/conflict dialectic. This allowed for the incorporation of the disintegration avoidance/harmony enhancement perspective on which Leung et al.’s (2002) model is based, as well as the original Western concept of cooperation versus competition, inherent also in the dual-concern models.

The three-dimensional, integrated model we propose culminates in eight conflict management styles. Two of the dimensions are borrowed from those of the Leung et al. (2002) model, which defines the harmony component more succinctly than any previous model and eliminates the ambiguity associated with “concern for other” as stipulated in dual-concern models. The third dimension represents the “concern for self” component in dual-concern models but is more clearly expressed as importance of personal goal. Depending on the situation and cultural attitudes, people are motivated to resolve conflict in a certain way based on three aspects: where they perceive their self-interest to lie (maintaining or ignoring the relationship); how important the outcome is in own-goal achievement; and values about how others’ needs should be treated.

We argue that the proposed model captures the essence of the dual-concern and harmony models and provides a richer framework for predicting a wider range of conflict management styles. For a comparison of the conflict styles suggested by various models, see Table 24.3. The last column in the table shows the relationship of the new styles with the preceding models. Note that the style of compromise in the dual-concern model is subsumed by the richer connotations of constructive diplomacy, and that the obliging style is augmented into two versions based on the findings of the empirical research to be discussed in the following section.

Although we focus on discrete conflict styles in our analysis, we note that there may be some fluidity between styles as some researchers (e.g., van de Vliert, Euwema, & Huismans, 1995) now focus on how people often vacillate from one style to another as the conflict develops. We argue that it is important first to build a strong theoretical framework relevant in as many cultures as possible so that conflict behavior can be understood in terms of the antecedent needs and attitudes of the parties. We also note that the integrated model proposed will require extensive testing to ascertain its validity and relevance. The authors, along with colleagues, have taken the first step in this regard, and the findings are discussed next.

TABLE 24.3
Summary of Styles From Four Conflict Models in Comparison With the Integrated Model

Dual Concern (Rahim, 1983)	Chinese Conflict Resolution (Hwang, 1997–8)	Dualistic Model of Harmony (Leung et al., 2002)	Yin-Yang Model of Conflict Styles (Brew, 2007)	Integrated Model
Dominating (self-interest only)	Confrontation (pursue goal, ignore harmony)		Destructive confrontation (instrumental conflict)	Destructive confrontation
Integrating (self- and other-interest)		Aligning (high in harmony enhancement)	Constructive controversy (ideal conflict)	Constructive controversy
Compromise (moderate concern for self- and other-interest)	Compromise (moderate in pursuing goal and maintaining harmony)			
Obliging (other-interest concern only)	Endurance (discard goal, maintain harmony)			Accommodating Concessional obliging Avoiding
Avoiding (low concern for self- and other-interest)	Severance (ignore harmony, discard goal)	Disintegrating as ignoring (low in both harmony motives)		Ignoring
	Obey publicly/ disobey privately (pursue goal, maintain harmony)	Smoothing as superficial compliance (high disintegration avoidance)	Smoothing (instrumental harmony)	Superficial compliance
		Balancing (high harmony enhancement and disintegration avoidance)	Constructive diplomacy (ideal harmony)	Constructive diplomacy

EMPIRICAL RELATIONSHIPS BETWEEN HARMONY AND CONFLICT

Leung, Brew, Zhang, and Zhang (2008) designed a study to test the existence of the avoidance/enhancement dualism of the harmony model (Leung et al., 2002) and to examine the connections of the two harmony attitudes to the five styles of the dual-concern model. They reasoned that harmony was not a value confined to Asian nations but prevalent in other cultures too. For example, one of the value umbrellas of the ten that Schwartz (1992) identified as being universally recognized was that of *universalism*, which included tolerance, peace, harmony, unity, and care for other people. Therefore, it was thought reasonable to test the dualistic model beyond the boundaries of an Asian sample.

Leung et al. (2008) first conducted a study with Hong Kong residents in which they developed an inventory of 42 items based on (a) harmony statements drawn from interviews with a diverse number of people asked about a recent conflict experience, and (b) popular Chinese sayings, such as, “If the family lives in harmony, all affairs will prosper” (家和萬事興). The inventory was tested with a sample of 275 working people, and a three-factor solution emerged using varimax rotation. After pruning the 42 items to 32 by eliminating items with weak or multiple loadings or items lacking content validity, the three-factor solution accounted for 38 percent of the variance. The first factor represented the hypothesized concept of *harmony enhancement*. The items loading on this factor, shown in Table 24.4, were primarily concerned with the notion of promoting harmony as an intrinsic moral good that is likely to bring about higher order outcomes (“Having an ability to interact with others harmoniously is vital for achieving major successes,” “Being patient and willing to compromise demonstrates that you have a higher sense of self-discipline than ordinary people,” etc.). A second factor represented the hypothesized concept of *disintegration avoidance*. Items loading on this factor focused more on the instrumental outcomes that would occur if harmony is maintained (“When people are in a more powerful position than you, you should treat them in an accommodating manner,” “If a person does you favors, you must be tolerant with them in order to protect your

TABLE 24.4
Items Defining Harmony Enhancement and Disintegration Avoidance

Harmony Enhancement

1. Having an ability to interact with others harmoniously is vital for achieving major successes.
2. Everything prospers when there is harmony in the family; maintaining harmony among family members is very important.
3. Making concessions demonstrates your maturity and capacity for forgiveness.
4. Being patient and willing to compromise demonstrates that you have a higher sense of self-discipline than ordinary people.
5. As a consequence of maintaining harmony between people, you are able to broaden your view of the world.
6. If there is no need for forced consensus and everyone has different perspectives, then everyone should be willing to compromise.
7. In interpersonal interactions, you should be considerate of others' difficulties and forgive them whenever possible.
8. Maintaining interpersonal harmony is an important goal in life.
9. The idea that interpersonal harmony promotes wealth is a wise one.
10. Being patient and willing to compromise is a show of respect to the other person.
11. It is a virtue to tolerate everything.
12. Being patient and willing to compromise indicates that a person is gracious and forgiving.

Disintegration Avoidance

1. When people are in a more powerful position than you, you should treat them in an accommodating manner.
2. In order to maintain harmony, people might have to give up principles of justice in handling matters.
3. You should not disturb your harmonious relationships with others, in order that embarrassment is avoided in future encounters.
4. As you often have to ride with the tide, it is better not to worry about what is unacceptable or unfair.
5. You should not create conflict. When you have conflict, you should try to smooth it over and make the other person happy.
6. If your losses are going to be small, there is no need to fight to the end.
7. If a person does you favors, you must be tolerant with them to protect your own interests.
8. Interacting harmoniously with people prevents them from giving you trouble in the future.

own interests," etc.). The third factor incorporated the notion of harmony as a hindrance in that maintaining harmony might result in a lack of problem solving, poor decision making, and reduced efficiency. Although the Chinese respondents recognized the shortcomings of always maintaining a harmonious approach, the hindrance factor in this and the subsequent study did not predict conflict behavior, and it is not discussed here.

A follow-up study was conducted with 301 workers from mainland China and 283 workers from Australia, a Western country whose citizens are noted for their frank and confrontational approach to conflict (Olekals, 1998). A confirmatory factor analysis of these data showed that the three-factor solution fit both samples. Thus, the dualistic nature of harmony conceptualized from a Chinese viewpoint is recognizable in an Anglo country, even if such a model may not be the full expression of harmony from an Anglo perspective. As yet, Western researchers have not explored the meaning of harmony in their societies.

Associations for both cultures were found between the two harmony attitudes (harmony enhancement and disintegration avoidance) and the five conflict styles measured by Rahim's (1983) conflict inventory (see Figure 24.1). Harmony enhancement in both cultures was related to the *integrating* style (mutual discussion and problem solving). In other words, the preference for genuine harmony is associated with the pursuit of an optimal settlement, and this association provides support for the style of *constructive controversy*, our more comprehensive expression for integrative behavior, which is driven by an attitude of harmony enhancement, alignment of interests, and high concern for personal goal. Disintegration avoidance was negatively related to the *integrating* style. Conversely, disintegration avoidance but not harmony enhancement was associated with the *avoidance* style in both cultures. This supports our contention that the motivation for conflict avoidance in Asian societies is related to perceptions of instrumental benefits to self as a result of the continuation of the relationship and not to a low concern for the self and other as stated in the dual-concern model. The Australian data indicate that this is also the case for a Western sample. Our proposed model contends that the manner of avoidance will vary according to the level of importance of personal goals, from simple avoidance when goals are not important to superficial compliance hiding covert behavior when goals are important. This differentiation has yet to be tested.

Interesting differences between the two cultures emerged for the style of *obliging*. For Australians, *obliging* was related more strongly to harmony enhancement than to disintegration avoidance. For Chinese, however, the reverse was true. Australians endorsed *obliging* more than did Chinese, indicating that they may have perceived some positive benefits in such a style. The relationship of *obliging* with harmony enhancement for the Australians suggests they perceived it as concessional behavior one chooses to make. The items measuring the style have an active "giving concessions" tone to them. On the other hand, the Chinese in the study may have interpreted the items more passively as "giving in," hence the relationship with disintegration avoidance. Based on these conjectures, we decided to include two versions of *obliging* in our new integrated model, but the existence of such a distinction is yet to be shown.

Disintegration avoidance and harmony enhancement were related to *compromising* in both cultures, although harmony enhancement was more strongly related than was disintegration avoidance. This is possibly due to the Australian sample, as there was a small but significant interaction indicating this. Nevertheless, the association of both harmony attitudes to *compromising* suggests support for our integrated model and the notion of balance between active enhancement and passive maintenance, as suggested by Leung et al. (2002). However, we surmise that a compromise is unlikely to be simply the result of moderate concern for self and other, as the dual-concern model suggests. Compromises are often made when the stakes are high for both sides, but an alignment of interests has not been possible. Skillful bargaining is often required, and the presence of both harmony attitudes suggests the *constructive diplomacy* style we have proposed.

Finally and unexpectedly, disintegration avoidance was related to the *dominating* style, although a significant interaction suggested that the relation of disintegration avoidance to *dominating* was more relevant to the Chinese than to Australians (the correlation for the Australian sample was

nonsignificant). The Australian data signify that dominating behavior was prevalent in the absence of any harmony attitude, and this finding is in line with the competitive type of behavior proposed by Tjosvold (1998). Therefore, our integrated model proposes that this type of win-lose behavior, labeled *destructive confrontation*, is likely when there is an absence of concern for the relationship but when the importance for personal gain is high. The interesting finding for the Chinese lends support for the *superficial compliance* style with its covert operations. Compared to Australians, Chinese scored higher in *avoiding* and lower in *integrating* behavior, in line with previous research (e.g., Brew & Cairns, 2004a), but unexpectedly lower in *obliging* and *compromising* and equal to Australians in *dominating* behavior. This pattern, marked by higher avoidance and lower compromising and obliging along with the positive relationship of disintegration avoidance with dominating, is suggestive of passive aggression, which entails passive or indirect aggressive acts (e.g., Baron & Neuman, 1996) as well as defensive behavior (Ashforth & Lee, 1990). This pattern of behavior may be due to the current competitive ethos in mainland China. Traditional Chinese culture emphasizes harmony and hence encourages the use of avoiding, obliging, and compromising in handling conflict. However, China's open door economic policy has been associated with a strong emphasis on productivity enhancement through competition (e.g., He, Chen, & Zhang, 2004). It is possible that traditional Chinese culture continues its influence by encouraging avoidance and discouraging integrating interests through open discussion, while at the same time the highly competitive environment promotes dominating behavior and discourages compromising and obliging behaviors. We note that passive aggression may be related to *obeying publicly/disobeying privately*, which we have captured in the term *superficial compliance*.

To sum up, the results illustrated three points. The dualistic model of harmony is viable, it is applicable beyond Asian cultures, and it provides support for our integrated conflict model.

FUTURE RESEARCH ON THE INTEGRATED CONFLICT MODEL

The integrated model proposed is obviously speculative and awaits empirical substantiation. The first step in testing this model is to develop measures for the conflict styles that are not captured by the dual-concern model and establish their validity and reliability. It is also important to explore the underlying motivational dynamics and see if these conflict styles correspond to the relevant permutation of outcome concern and harmony motives. The challenges will be that conventional inventories are limited by social desirability aspects, the lack of context, and the assumption that people have only one disposition in how they respond to conflict, when recent research such as that by van de Vliert et al. (1995) has shown that people change as the conflict progresses. Our proposed model includes a condition (high and low importance of personal goal) that is not easily tapped by a mere inventory but requires a contextual manipulation in the research design. Thus, we argue that there are two issues that require attention in validating this model based on a cross-cultural analysis of East-West differences. These are context and the emergent nature of conflict.

CONFLICT IN CONTEXT

As noted, the proposed integrated model incorporates a condition based on level of importance of personal goal. However, there are other contexts that are likely to have a salient bearing on conflict responses. For example, by examining situational effects, Brew and Cairns (2004b) were able to show that Western expatriates and East Asian host-nationals vary in their responses to the same hypothetical conflict situation according to the status and cultural identity of the other party and the urgency of the situation. Thus, confronting conflict was not necessarily the major response of expatriates, nor was avoiding confrontation the only response of the East Asian host-nationals.

Three contexts stand out for investigation, particularly in cross-cultural or intercultural settings: (1) the power differential, (2) group membership, and (3) the short-/long-term prospects of the relationship. The first of these is the unequal balance of power or power distance between the two

parties, as in the superior-subordinate relationship. People in East Asian countries are generally more susceptible to inequalities due to the power distance norm than those in Western nations. In East Asia, the higher their status, the more power superiors have over their subordinates and their future in the organization (Hofstede & Hofstede, 2005). Thus, the disintegration avoidance motive followed by accommodating, avoiding, or superficial compliance is likely to be prominent with subordinates in this setting. Western countries like the U.S. and Australia value egalitarianism and often have a range of processes in place to ensure the fair treatment of employees, damping the unbridled influence of superiors on the career progression of subordinates (Greenberg & Lind, 2000). The popularity of transformational leadership theories (e.g., Bass, 1985) in Western organizations may inspire an attitude of harmony enhancement in some superiors, so that, when conflict arises, constructive controversy or concessional obliging will be favored, as these theories suggest that good management involves sensitivity and empathy when dealing with subordinates' problems. However, these examples are not necessarily limited to a particular culture, as our results with the harmony scale showed.

The second context is that of in-group versus out-group. Chinese are more sensitive to this distinction than Westerners are. Conflict with a stranger is likely to involve destructive confrontation and no harmony motive among Chinese, but this is not necessarily true of Westerners (Leung, 1988). A work colleague might be viewed as out-group due to other-culture membership. When the relationship is ongoing, however, conflict with the individual is likely to invoke a disintegration avoidance approach so that superficial harmony is maintained. It is expected that passive-aggressive behavior will be more prevalent among East Asians with this type of out-group member than with an in-group member, as the competitive urge will be stronger in the former case. In most cultures, however, harmony preservation motives should be relevant in interactions with in-group members. All cultures contain principled people who are motivated by harmony enhancement to use polite and reasoned debate and discussion even with out-group members.

The third context, which is particularly relevant in business, is whether the relationship is viewed as short- or long-term. Short-term relationships are likely to be more susceptible to disintegration avoidance attitudes and superficial compliance outcomes, and passive-aggressive behavior might flourish as a result of competitive drivers. If the relationship is viewed as long-term, a harmony enhancement orientation is more likely. Thus, constructive controversy or diplomacy is appealing, despite being time-consuming and more demanding in terms of communication skills, as it will bring greater rewards.

A DYNAMIC PERSPECTIVE ON CONFLICT BEHAVIOR

Van de Vliert et al. (1995) have argued that actual conflict behavior is rarely made up of simply one discrete type of behavior suggested by the taxonomic dual-concern models, but is a combination of behaviors that can be sequential or simultaneous. The effectiveness of the behavior will be influenced by the component that de-escalated or escalated the conflict, rather than the dominant component. A similar view could be taken with the harmony motives. That is, people do not necessarily have a prevailing single orientation, but the orientation might change as the conflict progresses. For example, Westerners who have sojourned in East Asia and are familiar with the prevailing conflict avoidance strategy have been surprised by news reports of physical violence in the parliaments of Taiwan, Japan, and South Korea. Hwang (1997–8) observes that a subordinate might react to constant oppressive imposition of a superior's will by "tearing off his face" and confronting the superior aggressively. These are obvious examples of escalating conflict. It is assumed that in these settings, disintegration avoidance is usually important, but clearly, this was overridden by a sense of injustice or anger. Thus, the disputants may have commenced with a prevailing attitude of disintegration avoidance, but intervening conditions such as strong emotion pushed them to disintegration.

Similarly, harmony enhancement might devolve to the more instrumental disintegration avoidance during the one incident depending on the handling of the conflict. In their qualitative research,

Huang et al. (2007) found cases of genuine harmony between parties (analogous to harmony enhancement) downgrading to superficial harmony (analogous to disintegration avoidance) after less than satisfactory attempts to resolve the conflict. This sets the scene for an escalating process in future disputes that may end in disintegration.

Conversely, it should be possible to reverse the process, whereby a person can move from a disintegration avoidance attitude to that of the more ideal harmony enhancement. Van de Vliert et al. (1995) found that just a modicum of problem solving or accommodating markedly enhanced effectiveness, whereas even small amounts of avoiding had a contrary effect. Thus, changing from avoiding dealing with the conflict or using the more damaging passive-aggressive tactic to a more concessionary, diplomatic or constructive style involving mutual discussion, because the disputant begins to realize the strength in forgiveness and showing respect, should assist in defusing the conflict.

What is interesting about the dynamic perspective described above is that the exact nature of how a conflict develops may be due to an intervening process involving emotional and cognitive mechanisms. To sum up, a dynamic perspective on conflict research is rare in the literature, and future research on the integrated three-dimensional model we propose should take the dynamic nature of conflict processes into account.

CONCLUSION

We have reviewed the theorizing associated with the notion of harmony, and we propose that harmony constructs based on how the relationship of one party to another is viewed can augment Western conflict frameworks that are based merely on outcome concerns. First, our cultural analysis has identified intellectual blind spots in existing well-established conflict theories and inspired the integrated model presented here. For example, our concept of *superficial compliance* is unknown in Western conflict research, but this type of behavior might also be common in the West.

Second, underscored by both outcome and harmony constructs, an integrated model of conflict styles is proposed that is more comprehensive than models based on either outcome concerns or harmony motives alone. This is the first attempt to arrive at a model that should have universal application. Third, the inclusion of measurable motives and expectations in a conflict model has been long overdue and should provide a new conceptual tool to understand cross-cultural and individual differences beyond those based on cultural or personality measures that have been unable to explain much of the variance. For example, as part of the study by Leung et al. (2008) described earlier, a popular measure of independent and interdependent self-construal (Singelis & Brown, 1995), which is often used to represent the famous individualist-collectivist dimension, was administered. Preliminary analysis of this scale revealed that it was very weak as a mediating or moderating variable of culture in this study, being better described as an independent predictor of conflict behavior across both cultures.

Finally, several directions for future research have been discussed, with the aim of stimulating future research that integrates harmony and conflict constructs for a complete understanding of disagreements and clashes.

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REFERENCES

- Ashforth, B. E., & Lee, R. T. (1990). Defensive behavior in organizations: A preliminary model. *Human Relations*, 43, 621–648.

- Baron, R. A., & Neuman, J. H. (1996). Workplace violence and workplace aggression: Evidence on their relative frequency and potential causes. *Aggressive Behavior, 22*, 161–173.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Brew, F. P. (2007). Harmony and controversy: The Yin and Yang of conflict in East Asian and Western cultures. In J. H. Liu, C. Ward, A. Bernardo, M. Karasawa, & R. Fischer (Eds.), *Casting the individual in societal and cultural contexts: Social and societal psychology for Asia and the Pacific*. Progress in Asian Social Psychology Series (Vol. 6, pp. 39–59). Seoul: Kyoyook-Kwahak-Sa Publishing Co.
- Brew, F. P., & Cairns, D. R. (2004a). Styles of managing interpersonal workplace conflict in relation to status and face concerns: A study with Anglos and Chinese. *International Journal of Conflict Management, 15*, 27–56.
- Brew, F. P. & Cairns, D. R. (2004b). Does culture or situational constraints determine choice of direct or indirect styles in intercultural workplace conflicts? *International Journal of Intercultural Relations, 28*, 331–352.
- Brew, F. P., Tan, J., Booth, H., & Malik, I. (2007, July). *Testing the Yin and Yang model of conflict: A study with Australians and Chinese*. Paper presented at the 7th Biennial Conference of the Asian Association of Social Psychology, Kota Kinabalu, Malaysia.
- Chen, G. M. (2001). Towards transcultural understanding: A harmony theory of Chinese communication. In V. H. Milhouse, M. K. Asante, & P. O. Nwosu (Eds.), *Transculture: Interdisciplinary perspectives on cross-cultural relations* (pp. 55–70). Thousand Oaks, CA: Sage.
- Chen, G. M. (2002). The impact of harmony on Chinese conflict management. In G. M. Chen & R. Ma (Eds.), *Chinese conflict management and resolution* (pp. 3–17). Westport, CT: Ablex.
- Cho, Y. H., & Park, H. H. (1998). Conflict management in Korea: The wisdom of dynamic collectivism. In K. Leung & D. Tjosvold (Eds.), *Conflict management in the Asia Pacific: Assumptions and approaches in diverse cultures* (pp. 15–48). Singapore: John Wiley & Sons.
- Deutsch, M. (1949). A theory of competition and cooperation. *Human Relations, 2*, 129–151.
- Deutsch, M., & Coleman, P. T. (2000). *The handbook of conflict resolution: Theory and practice*. San Francisco: Jossey-Bass.
- Friedman, R., Chi, S. C., & Liu, L. A. (2006). An expectancy model of Chinese-American differences in conflict-avoiding. *Journal of International Business Studies, 37*, 76–97.
- Gabrenya, W. K., & Hwang, K. K. (1996). Chinese social interaction: Harmony and hierarchy on the good earth. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 309–321). Hong Kong: Oxford University Press.
- Greenberg, J., & Lind, E. A. (2000). The pursuit of organizational justice: From conceptualization to implication to application. In C. L. Cooper & E. A. Locke (Eds.), *Industrial and organizational psychology: Linking theory with practice* (pp. 72–108). London: Blackwell.
- Hall, J. (1969). *Conflict management survey*. Rochester, NY: Technometrics.
- He, W., Chen, C. C., & Zhang, L. (2004). Rewards-allocation preferences of Chinese employees in the new millennium: The effects of ownership reform, collectivism, and goal priority. *Organization Science, 15*, 221–231.
- Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind* (2nd edition). New York: McGraw-Hill.
- Huang, L. L. (1999). *Interpersonal harmony and conflict: Indigenous theories and research*. Taipei, Taiwan: Gui Guan (in Chinese).
- Huang, L. L., Jone, K. Y., & Peng, T. K. (2007). Conflict resolution patterns and relational context: An exploratory study combining etic and emic theories in Taiwan. In J. H. Liu, C. Ward, A. Bernardo, M. Karasawa & R. Fischer (Eds.), *Casting the individual in societal and cultural contexts: Social and societal psychology for Asia and the Pacific*. Progress in Asian Social Psychology Series (Vol. 6, pp. 61–82). Seoul: Kyoyook-Kwahak-Sa Publishing Co.
- Hwang, K. K. (1997–8). Guanxi and Mientze: Conflict resolution in Chinese society. *Intercultural Communication Studies, 1*, 17–42.
- Kirkbride, P., Tang, S., & Westwood, R. (1991). Chinese conflict preferences and negotiating behavior: Cultural and psychological influences. *Organization Studies, 12*, 365–386.
- Lau, D. C. (Trans.). (1983). *Confucius: The Analects (Lun Yu)*. Hong Kong: Chinese University Press.
- Leung, K. (1988). Some determinants of conflict avoidance. *Journal of Cross-Cultural Psychology, 19*, 125–136.

- Leung, K. (1997). Negotiation and reward allocations across cultures. In P. E. Early & M. Erez (Eds.), *New perspectives on international industrial organizational psychology* (pp. 640–675). San Francisco: New Lexington.
- Leung, K., Brew, F. P., Zhang, Z. X., & Zhang, Y. (2008). *Harmony and conflict: A cross-cultural study in China and Australia*. Manuscript submitted for publication.
- Leung, K., Koch, P., & Lu, L. (2002). A dualistic model of harmony and its implications for conflict management in Asia. *Asia Pacific Journal of Management*, 19, 201–220.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw Hill.
- A Modern Chinese-English Dictionary*. (1988). Beijing: Foreign Language Teaching and Research Press.
- Morris, M. W., Williams, K. Y., Leung, K., Bhatnagar, D., Li, J. F., Kondo, M., et al. (1998). Culture, conflict management style, and underlying values: Accounting for cross-national differences in styles of handling conflicts among US, Chinese, Indian and Filipina managers. *Journal of International Business Studies*, 29, 729–748.
- Ohbuchi, K. (1998). Conflict management in Japan: Cultural values and efficacy. In K. Leung & D. Tjosvold (Eds.), *Conflict management in the Asia Pacific: Assumptions and approaches in diverse cultures*. Singapore: John Wiley & Sons.
- Ohbuchi, K., & Takahashi, Y. (1994). Cultural styles of conflict management in Japanese and Americans: Passivity, covertness, and effectiveness of strategies. *Journal of Applied Social Psychology*, 24, 1345–1366.
- Olekalns, M. (1998). Negotiating with Australia: The individual among us. In K. Leung & D. Tjosvold (Eds.), *Conflict management in the Asia Pacific: Assumptions and approaches in diverse cultures* (pp. 277–301). Singapore: John Wiley & Sons.
- Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Belmont, CA: Brooks/Cole.
- Rahim, M. A. (1983). A measurement of styles of handling interpersonal conflict. *Academy of Management Journal*, 26, 368–376.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in two countries. In M. P. Zanna (Ed.), *Advances in experimental and social psychology* (Vol. 25 pp. 1–65). New York: Academic Press.
- Singelis, T. M., & Brown, W. J. (1995). Culture, self, and collectivist communication: Linking culture to individual behavior. *Human Communication Research*, 21, 354–389.
- Thomas, K. (1976). Conflict and conflict management. In M. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. (pp. 889–935). Chicago: Rand McNally.
- Tinsley, C. (1998). Models of conflict resolution in Japanese, German, and American cultures. *Journal of Applied Psychology*, 83, 316–323.
- Tinsley, C., & Brodt, S. (2004). Conflict management in Asia: A dynamic framework and future directions. In K. Leung & S. White (Eds.), *Handbook of Asian management* (pp. 439–458). Boston: Kluwer.
- Tjosvold, D. (1998). Cooperative and competitive goal approach to conflict: Accomplishments and challenges. *Applied Psychology: An International Review*, 47, 285–342.
- Tjosvold, D., & Sun, H. F. (2002). Understanding conflict avoidance: Relationship, motivations, actions and consequences. *International Journal of Conflict Management*, 13, 142–164.
- Tjosvold, D., & van de Vliert, E. (1994). Applying cooperative and competitive conflict theory to mediation. *Mediation Quarterly*, 11, 303–311.
- van de Vliert, E., Euwema, M. C., & Huismans, S. E. (1995). Managing conflict with a subordinate or a superior: Effectiveness of conglomerated behavior. *Journal of Applied Psychology*, 80, 271–281.
- Wall, J. A., & Stark, J. (1998). North American conflict management. In K. Leung & D. Tjosvold, *Conflict management in the Asia Pacific: Assumptions and approaches in diverse cultures* (pp. 303–333). Singapore: John Wiley & Sons.

Section VI

Integration and Reflection

25 Culture and Information Processing

A Conceptual Integration

Robert S. Wyer, Jr.

The recent growth of interest in the antecedents and consequences of cultural differences in cognition, judgment, and behavior has created a true revolution in psychological theory and research. After being largely ignored by mainstream researchers for many years, these differences have become recognized as one of the most important concerns of not only psychology but social science in general. The articles in this volume testify to the diversity of phenomena that have captured the theoretical and applied interests of eminent scholars whose interests range from organizational behavior to neuroscience, and whose own cultural backgrounds span the entire globe.

The emergence of interest in culture-related phenomena is undoubtedly due in part to the increased frequency of interaction among people of different cultures with the advent of global marketing, the ease of international travel, and communication on the Internet. My own life exemplifies this emergence, being someone who had never left the U.S. until the age of 37 but who has since done two six-month backpacking trips around the world, is married to a native Indian, has a daughter working in England, and has spent the past 10 years working in Southeast Asia. These experiences have made me personally aware of the need to understand and communicate with members of different cultures and, in some instances, the difficulty of doing so. However, I am obviously only one of many psychologists who have found that their traditional approaches to understanding basic cognitive, motivational, and behavioral phenomena have been limited by the failure to take cultural differences in these phenomena into account and to articulate the factors that give rise to them.

A compelling argument can be made that "culture" is not an explanatory variable and, therefore, is of primarily heuristic interest. As Markman, Grimm, and Kim (this volume) suggest, the importance of cross-cultural research lies in part in its potential to uncover determinants of cognition and behavior that would not be discovered without an exposure to subject populations that varied with respect to these factors. (The fish is the last to discover water!) Once these differences have been articulated and conceptualized so that their antecedents and consequences can be understood, however, they can be integrated into a broad conceptualization of human behavior that does not involve culture per se as an explanatory construct. The research and theory described in this volume testify to the potential value of cultural research in developing such a conceptualization.

A counterargument, of course, is that the whole is different from the sum of its parts. Although the constructs of a particular culture may be represented in other cultures as well (see Triandis, this volume; Oyserman and Sorensen, this volume), individuals respond to configurations of stimuli, and these configurations and responses to them may be unique.* (See Tsui, this volume, for an elaboration of this argument.)

* Psychological research and the theories that stem from it are typically restricted to a small number of variables that can be examined independently in the laboratory. When higher order interactions empirically occur, they are often regarded as meaningless, and little effort is made to interpret them. This tendency is perhaps a reflection of the inherent failure for the human mind to comprehend the effects of more than two variables at a time. However, it is reminiscent of the ostrich that sticks its head into the sand and pretends that the outside world does not exist.

I have no resolution to this debate. It may nevertheless be worth considering where and how the various issues raised in this volume might potentially fit into a general conceptualization of human behavior.

The conceptualization I propose assumes that the antecedents of judgments and behavior are a result of cognitive and motivational processes that operate at several stages. Several detailed formulations of information processing, based on this assumption, have been developed (McGuire, 1972; Wyer, 2004; Wyer & Srull, 1989), the nature of which is beyond the scope of this chapter. However, the simplified description along the lines of Figure 25.1 may suffice for the present purposes. This figure assumes that when stimulus information impinges on the cognitive system, it is first comprehended, and its implications are then integrated with their previously acquired knowledge about its referent. The results of this integration may have the form of a subjective judgment or decision, and this in turn can lead to an overt behavioral response. The previously acquired knowledge that enters into this process can include not only semantic concepts, norms, values, goals, and implicit theories (declarative knowledge) but also the procedures for operating on these cognitions (procedural knowledge).

However, only a subset of one's previously acquired knowledge that might be relevant is actually applied, the nature of which is determined by its accessibility in memory. Its accessibility, in turn, may be influenced by both features of the immediate situation and past experiences that have led it to be used frequently in the past. Cultural factors presumably exert their influence through their impact on both the subset of knowledge that is applied and the cognitive operations that are performed on this knowledge. They could also influence the subset of transitory situational factors to which people are exposed. Numerous examples of these effects are provided in later sections of this chapter.

Figure 25.1 obviously does not convey all of the interrelations that exist among the various components it portrays (see Wyer & Srull, 1989, for a more detailed explication of these relations). However, many of the issues discussed in earlier chapters of this volume can be conceptualized in terms of the components of the figure. In the pages to follow, I attempt to provide a summary and integration of these issues and some of the empirical work that bears on them. I first describe the conception of culture and the manner in which culture-related knowledge is represented in memory. I then consider the factors that influence the accessibility of this knowledge, and its use in comprehension and communication. I finally consider the role of motivation.

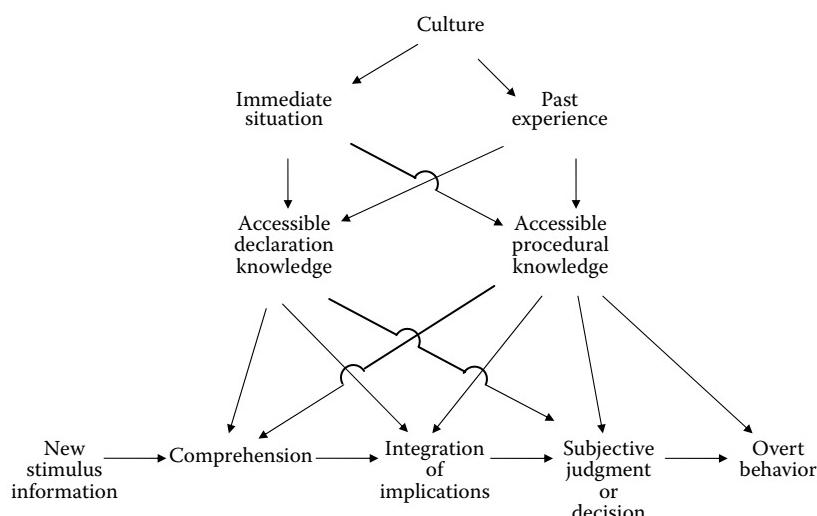


FIGURE 25.1 Simplified flow diagram of the information processing resulting from new stimulus information and the factors that affect it.

In this chapter, I do not pretend to discuss the implications of all theory and research that might be conceptualized within the framework I propose (for recent reviews of this research, see Chiu & Hong, 2007; Kitayama & Cohen, 2007). Rather, I will focus on the many issues that are discussed in this volume. Furthermore, the relative attention I pay to this work does not reflect my perception of its importance, but rather is a function of its utility in explicating some of the points I hope to make.

WHAT IS CULTURE?

Cultures have often been equated with nation-states (Hofstede, 1980, 2001). However, Tsui, Nifadkar, and Ou (this volume) as well as other contributors to this volume point out the hazards of doing so. As Oyserman and Sorensen (this volume) note, this equation implicitly assumes that cultures are static entities with circumscribed geographic boundaries, rather than having a dynamic, changing character. Although most contributors to this volume do not make this assumption, they nevertheless differ in their perceptions of how culture should be conceptualized.

Schwartz (this volume), for example, conceptualizes culture as a latent, hypothetical variable that is outside the individual rather than located in their minds and actions, and is the “press” to which individuals are exposed, consisting of language patterns, norms, expectations, and so forth (see Bond & Leung, this volume, for a similar view). In contrast, Hong (this volume) characterizes cultures as associative networks of knowledge, consisting of both (a) learned routines of thinking, feeling and interacting and (b) configurations of beliefs, attitudes, values, and implicit theories about the relations among aspects of their physical and social world (Chiu & Hong, 2007). Oyserman and Sorensen (this volume) do not consider culture as an entity unto itself. Rather, they postulate a multiplicity of “cultural syndromes” or “patterned beliefs, attitudes and mindsets that tie together in a loosely defined network” (see also Triandis, this volume, for a similar view). These syndromes are not unique to a given society but may exist to greater or lesser extent in many societies whose members do not necessarily interact.

On the other hand, Tsui et al. (this volume) argues against the disposition to view culture as a set of independently conceived variables. Rather, she proposes that culture be treated as a *pattern* of interrelated variables that combine in unique ways to influence behavior. In a quite different context, Mischel and Shoda (1995) pointed out that personality dispositions are often situation specific. For example, someone might be consistently tyrannical at home and consistently submissive at the office. Thus, an individual’s personality might be characterized in terms of situation-specific patterns of responding. A culture might likewise be conceptualized as context-specific patterns of behavior, and its effects cannot be captured by a set of dimensions that do not take contextual features into account. (See Hong & Mallorie, 2004, for a similar point.)

A conceptualization that potentially takes contextual factors into account is proposed by Wan and Chiu (this volume). They argue against the traditional conception of culture in terms of the typical characteristics of the individuals who represent it. Rather, they propose an “intersubjective” conception of culture in terms of the norms, values, and behaviors that cultural representatives collectively *believe* are characteristic of the culture to which they belong, independently of the values and behaviors that they actually manifest. Viewed from this perspective, one can begin to investigate the situational and individual difference factors that account for deviations from the norms that cultural representatives perceive to predominate.

Despite these differences in perspective, the contributors to this volume agree that the primary objective of cultural research is not to characterize any given society as different from others but, rather, is to identify configurations of internalized behaviors, attitudes, and behavior patterns and their interrelatedness, to understand why they occur and to construe their implications. These configurations may not be identified on the basis of research and theory that are developed within a single societal context. To the extent that a particular cluster of norms and behavior descriptions has little variance within a particular society, its effects can only be identified by comparing the society to others that differ with respect to this cluster.

DIMENSIONS OF CULTURAL VARIATION

Although a culture may not itself be defined as simply a set of independently defined dimension values, it is nonetheless important to conceptualize the predominant dimensions along which cultural groups are likely to vary. Stimulated by Hofstede's (1980, 1991) work, many attempts have been made to identify these dimensions (Triandis, 1995; see also Bond, Leung, Schwartz, Smith and Triandis, all in this volume). This work has been valuable in directing theorists' and researchers' attention to factors that distinguish individuals both within and between societies. Differences in individualism and collectivism (Hofstede, 1980; Triandis, 1995) and independence versus interdependence (Markus & Kitayama, 1991) have been particularly fruitful, although variation in masculinity-femininity (Nelson, Brunel, Supphellen & Manchanda, 2006), power distance (Hofstede, 2001), and tightness-looseness (Triandis, 1994) can also contribute important sources of variance. (See Triandis, Bond & Leung, and Schwartz, this volume, for discussions of several other dimensions of cultural variation.)

In evaluating the implications of this work, several considerations are worth noting. First, conclusions have largely been based on factor analyses or multidimensional scaling of individuals' responses to surveys of questionnaire items. The factors extracted from such analyses are completely determined by the characteristics of the individual items that enter into them. ("Individualism" cannot emerge as a factor, for example, unless items that potentially reflect this characteristic are included in the analysis.) Consequently, as Schwartz (this volume) argues, any attempt to identify the fundamental dimensions of cultural variation is more likely to be successful if the possible dimensions can be conceptualized *a priori* on the basis of theoretical considerations and items then selected that are likely to reflect these dimensions.

Schwartz's concern becomes particularly salient when conceptualizing measures of individualism-collectivism. Although these measures are assigned the same label, they may qualitatively differ. Ho and Chiu (1994) identified 18 different dimensions that could compose a more general construct of individualism-collectivism (uniqueness versus uniformity, self-reliance versus conformity, economic independence versus interdependence, etc.). Not surprisingly, therefore, measures of the construct differ substantially in the attitudes and values to which they pertain (Rhee, Uleman, & Lee, 1996). Triandis and Gelfand (1998) argued that both individualism and collectivism vary along a second dimension that reflects the emphasis placed on status versus equality. The mapping of these and other dimensions onto those proposed by Schwartz are not completely clear (see Schwartz, this volume, for a discussion).

A related consideration surrounds the interpretation of the factors that emerge from analyses of individualism and collectivism as reflecting opposite ends of a dimension. In an analysis of Asians' and Americans' responses to the scale employed by Triandis and Gelfand (1998), Briley and Wyer (2001) identified five independent factors that distinguish the two cultural groups. However, characteristics associated with individualism and those often interpreted as reflecting collectivism loaded on different orthogonal factors, suggesting that these characteristics are actually independent and not opposite ends of a single dimension.

Differences in individualism and collectivism that are based on survey responses can be partly a reflection of individual differences in response style. Smith (this volume) discusses the impact of two factors—acquiescence and extremity—that can cut across numerous more specific measures and that vary over cultures in which social desirability and self-presentational concerns have differential impact. Furthermore, response style differences can sometimes lead to misconceptions of substantive differences across cultural groups (Schwarz, 2003). In a study by Ji, Schwarz, and Nisbett (2000), for example, Chinese and American participants were asked how frequently they engaged in a number of observable behaviors (e.g., going to the library) along either a scale defined by low frequency alternatives (e.g., "less than once a year" versus "more than once a month") or high frequency alternatives (e.g., "less than once a week" versus "more than once a day"). Interestingly, Americans were governed to a greater extent by social desirability motives than Chinese were.

Thus, they reported engaging in the behaviors less often than Chinese when they used the low-frequency scale, but more often than Chinese when they used the high-frequency scale. Thus, conclusions concerning Asians' and Americans' behavior were diametrically opposite, depending on the nature of the scale that respondents were arbitrarily asked to use.

Finally, it is important to note that the dimensions that differentiate cultures or national groups, or that distinguish individuals within a given group, may not themselves exist in the minds of individuals themselves. For one thing, an individual's cognitive system is not composed of dimensions but, rather, of concepts and categories that individuals bring to bear on their interpretation of the information they encounter and the judgments and decisions they make. Kashima (this volume) argues persuasively that it may be misleading, and of limited utility, to conceptualize the dimensions along which cultures appear to vary as explanatory constructs. Rather, they should be viewed as *interpretive* constructs that are used by investigators to conceptualize cultural variation that they identify in different situational contexts. To this extent, a characterization of culture in terms of different dimensions, or configurations of dimensions, is of heuristic value in conceptualizing the nature of concepts, beliefs, values, and norms that members of a society are likely to adopt and the criteria they use as a basis for judgments and decisions. However, they are constructs that exist in the mind of the investigator and not in the members of the society being investigated.

Wan and Chiu's (this volume) approach, mentioned earlier in this chapter, is consistent with Kashima's conceptualization and may provide a refreshing solution to many of the apparent differences and inconsistencies that have arisen. That is, there may be greater consistency in the norms, values and behaviors that members of a cultural group believe are characteristic of a given cultural group, than in the actual values and behaviors that its members personally endorse. If this is so, the dimensionality of their intersubjective perceptions might provide a common standard of conceptual and empirical value in understanding between-culture and within-culture variation in actual judgments and behavior and the reasons for its occurrence.

THE REPRESENTATION AND ACCESSIBILITY OF KNOWLEDGE

As several contributors to this volume point out, differences between cultures may not reflect differences in the concepts and knowledge that members of these cultures have acquired but, rather, may result from differences in the relative *accessibility* of this knowledge and, therefore, in the likelihood that it is retrieved and used under conditions in which more than one subset of knowledge is potentially applicable. This point is made salient by research on biculturalism (Hong, this volume; Ng & Han, this volume; see Friedman & Liu, this volume, for a discussion of the role of biculturalism in an applied context) as well as by Oyserman and Sorensen's (this volume) conceptualization of cultural syndromes. Television, the Internet, and international travel have exposed individuals to concepts, norms, and behaviors that predominate in many societies other than their own. However, although knowledge of different cultures is likely to be shared by members of many societies, it differs in its accessibility and, therefore, in the likelihood that it is called upon for use in comprehending new information and making behavioral decisions.

Two types of knowledge may underlie judgments and behavior. First, *declarative* knowledge consists of the concepts, norms, beliefs, and implicit theories that individuals acquire and use to interpret their daily life experiences; to make inferences about past, present, and future events; and to construe the likely consequences of their behavioral decisions. Second, people acquire *procedural* knowledge about the sequence of operations that lead to the attainment of a particular objective. The sequence of steps required to attain a goal can of course be part of declarative knowledge and can be consciously consulted in the course of pursuing this objective. In addition, however, people acquire well-learned sequences of cognitive and motor operations that require little cognitive deliberation and are activated and applied spontaneously in response to a specific configuration of stimuli whenever the configuration is experienced. Cultural differences in judgments and behavior can often be traced to differences in declarative knowledge, differences in procedural knowledge,

or both. Alternatively, they may be due to the accessibility of this knowledge in memory at the time a judgment or decision is made.

Much of the research and theory described in later sections of this chapter reflects the activation and use of declarative and procedural knowledge. However, some general comments on each type of knowledge and its effects may be useful in anticipation of this discussion.

DECLARATIVE KNOWLEDGE

Representation in memory. The organization of declarative knowledge in memory can be conceptualized in several ways (Carlston & Smith, 1996; Wyer, 2007). These conceptualizations are typically metaphorical. For example, they assume that memories are localized rather than being distributed throughout the cognitive system (for exceptions, see Kashima, Woolcock, & Kashima, 2000; Smith & DeCoster, 1999). Thus, they should be evaluated on the basis of their utility in conceptualizing phenomena and not their validity as physical descriptions of the mind.

Two general conceptualizations are worth noting briefly. One assumes that information is stored in memory in an associative network (Collins & Loftus, 1975; Wyer & Carlston, 1979). That is, concepts or units of knowledge are represented by nodes and associations among them by pathways connecting them. According to this conception, activating one concept or knowledge unit may also activate other concepts or units that are closely associated with it, increasing the accessibility of this knowledge and, consequently, the likelihood of applying it.

Another conception, exemplified by Wyer and Srull's (1989) "bin" model, also assumes that a given representation of knowledge can consist of a set of interrelated concepts (some of which might compose an associative network). However, it further assumes that these representations, once formed, are stored independently in a stack (bin) pertaining to their referent. They are stored as they are deposited, and their accessibility depends on both their proximity to the top of the bin (which depends on the recency with which they have been deposited) and the number of times they are represented (a function of their frequency of use).*

Principles of knowledge accessibility. The principles that govern the accessibility of declarative knowledge are well known (Higgins, 1996; Wyer, 2004, 2008; Wyer & Srull, 1989). Briefly, people are typically unmotivated or unable to conduct an exhaustive search of memory for all of the knowledge that might be relevant to the information they are trying to comprehend or the goal they happen to be pursuing. Rather, they rely on only a small number of cognitions that are accessible in memory and happen to come to mind most easily. The accessibility of these cognitions is a function of both the recency and the frequency of their prior use. Thus, frequent exposure to experiences in which a subset of knowledge has been used can increase its chronic accessibility in memory and, therefore, the likelihood that it is applied. At the same time, features of the immediate situation or a very recent one can temporarily increase the accessibility of concepts and knowledge and can override the impact of chronically accessible knowledge (Higgins, Bargh, & Lombardi, 1985; Srull & Wyer, 1979, 1980). In the present context, these considerations suggest that chronic cultural differences in the accessibility and use of concepts in knowledge can exist as a result of the frequency of their use in a specific cultural context. At the same time, characteristics of one's immediate situation can activate concepts and knowledge that overrides these more general effects.

Cultural differences in declarative knowledge. The activation and use of culture-specific knowledge can be viewed with reference to the conceptualizations of memory organization noted earlier. The conceptualizations have somewhat different implications. On one hand, cultural knowledge could be viewed as a number of different knowledge representations (concepts, values, and behavioral dispositions) that predominate in a particular cultural context and are independently accessible

* A third, retrieval-cue model (cf. Hintzman, 1986; Ratcliff, 1978; Wyer, 2004) assumes that each unit of knowledge is represented in memory independently and that its retrieval depends on the similarity of its features to those of a set of retrieval cues that are compiled for use in retrieving goal-relevant information.

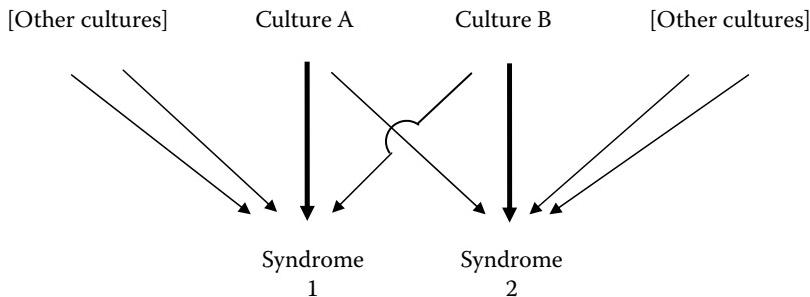


FIGURE 25.2 Relations of two cultural syndromes to two hypothetical cultures, A and B. Arrows denote stronger associations.

in memory as a result of their frequent use in this context. According to a “bin” conception, these cognitive representations would be stored independently of one another, and situational factors that increase the accessibility of one would not affect the accessibility of others. According to an associative network model, however, the representations would be interconnected and the activation of one might increase the accessibility of others.

Research and theory described in this volume are worth considering with reference to these conceptualizations. Oyserman and Sorensen (this volume; see also Triandis, this volume), for example, postulate the existence of cultural syndromes, each of which consists of a network of loosely related constructs. These syndromes could exist independently in the cognitive system of members of the culture, differing only in their chronic accessibility in memory. To this extent, increasing the accessibility of one feature of a syndrome is likely to increase the accessibility and use of other features without necessarily activating culture-related concepts per se. Furthermore, culture-related concepts themselves may not be sufficient to activate these syndromes.

Another possibility, however, is that cultural norms, values, and behavioral dispositions are associated in different integrated systems of knowledge, each of which is associated with a more general concept of the culture in which they predominate. To this extent, activating a concept of the culture per se might activate the body of knowledge associated with it, influencing attitudes, judgments, and behavior in a variety of domains. Hong and her colleagues (see Hong, this volume) show that exposing individuals to cultural icons that have no direct implications for behavior nevertheless affected individuals’ attributions of causality (Hong, Morris, Chiu, & Benet-Martínez, 2000), their competitiveness in a Prisoners Dilemma game (Wong & Hong, 2005), the types of events they describe in response to questions about instances in which they felt ashamed (Hong, Lee, & Zhang, 2006), the values they report along dimensions associated with individualism and collectivism (Briley & Wyer, 2001), and the range of significant others they include in their conception of “self” (Ng & Lai, in press; see Ng & Han, this volume).*

The conceptualizations proposed by Oyserman and Sorensen and by Hong are not necessarily incompatible. However, they suggest a conception of memory in which different knowledge structures, each pertaining to a different cultural syndrome, are represented as shown in Figure 25.2, with each being more or less strongly associated with a central, culture-based concept without being connected to one another except through their common link to this concept. Biculturals may have a second culture-specific concept to which these syndromes are also associatively linked. However, the strength of the syndromes’ association with this concept may differ from the strength of their association with the first.

* A particularly provocative finding by Ng, Hah, Mao, and Lai (2008) is that priming bicultural Chinese with either Chinese or Western icons affected the location of “self” and “mother” in the same versus different areas of the brain, as inferred from fMRI data.

Oyserman and Sorensen's (this volume) conceptualization implies that a particular cultural syndrome can exist in many cultures and, therefore, can become associated with several different culture-related concepts. However, a particular culture-specific concept may be associated with only one syndrome. The likelihood of one representation activating another is theoretically an inverse function of the number of other elements associated with it (Collins & Loftus, 1975; Wyer & Carlston, 1979). This means that priming a culture-based concept (e.g., by exposing participants to cultural icons) is more likely to activate a cultural syndrome (e.g., individualism) than is priming the syndrome to activate a concept of the culture.

On the other hand, exposing individuals to cultural icons can have other effects. For one thing, it is likely to call people's attention to themselves as representatives of the cultural group in question. In some cases, this identity can have motivational implications that override their effects on knowledge accessibility. Briley and Wyer (2002), for example, found that exposing Chinese and Western participants to icons of their own culture, thereby increasing their consciousness of their cultural identity, led *both* groups to manifest behavior that is associated with membership in a group (i.e., to compromise and to minimize the consequences of negative outcomes). Calling people's attention to their cultural identity could also activate their implicit theories of the norms and behaviors that are appropriate in this culture. This latter possibility is consistent with Wan and Chiu's (this volume) "intersubjective" definition of culture in terms of what cultural representatives believe are characteristic of their culture, rather than their actual values and behavior. These beliefs could influence the behavior of individuals who are motivated to present themselves in a way they consider to be socially appropriate, although not necessarily of those for whom this goal does not exist (see also Bond & Cheung, 1984).

PROCEDURAL KNOWLEDGE

People also acquire knowledge of how to attain certain goals or objectives. As I noted earlier, these procedures can often exist in declarative knowledge as sequences of steps that can be performed to attain a goal to which they are relevant. However, when a behavioral routine has been used repeatedly, it can come to be performed with little cognitive deliberation. These well-learned sequences of actions can be conceptualized in terms of productions of the sort proposed by Anderson (1982, 1983). A production is conceptualized as a learned "if [X], then [Y]" rule, where [X] is a configuration of internally generated and externally experienced stimulus features and [Y] is a sequence of cognitive and/or motor behavior that is elicited spontaneously when the preconditions specified in [X] are met. Two important features of a production are:

1. The features of [X] can include external stimuli that are conveyed verbally or experienced in other sense modalities. They can also include thoughts and concepts that happen to be accessible in memory at the time, representations of goals, subjective experience (e.g., affect), and proprioceptive cues. The configuration is processed holistically, with little clear articulation of its individual features. Thus, some features that compose it might not be consciously identified.
2. The response, or sequence of responses, that is elicited by a production can occur spontaneously, with little if any cognitive deliberation. Therefore, it may sometimes occur automatically, without conscious awareness.

The role of procedural knowledge in judgment and behavior is quite different from that of declarative knowledge. Although people are not always conscious of the factors that give rise to the accessibility of declarative knowledge in memory (Bargh & Pietromonaco, 1982), they are usually conscious of the fact that they are using it. In contrast, the sequence of actions that are governed by productions may be much less conscious and largely automatic. However, the activation of these productions can also depend on situational factors that happen to exist at the time and are included

in the precondition that elicits them. Thus, if two productions are equally applicable for attaining a particular objective but differ in the situations in which they have been learned, the presence of goal-irrelevant contextual factors in a new situation may determine which one is applied.

Because productions of the sort that compose procedural knowledge are presumably acquired through learning, cultural differences in socialization can give rise to these productions and to the behaviors that they generate. Several cultural differences that may reflect a difference in procedural knowledge have been reported by Choi, Nisbett, and their colleagues (Choi & Nisbett, 2000; Nisbett, Peng, Choi, & Norenzayan, 2001). As noted earlier, the disposition to think of oneself with relation to others may be a more general manifestation of relational thinking that generalizes over social and physical domains. Thus, Asians, who think of themselves in relation to others (Markus & Kitayama, 1991), not only tend to attribute other individuals' behavior to contextual (situational) factors rather than to characteristics of the individuals themselves (Choi & Nisbett, 2000), but also have better memory for the location of objects on a page and their positions in relation to one another (Kühnen, Hannover, & Schubert, 2001; Kühnen & Oyserman, 2002). These differences suggest a difference in a more general procedure that, once activated, influences behavior in a wide range of situations. I return to this possibility in the next section.

SELF-REPRESENTATIONS

A particularly important body of knowledge concerns oneself. A depiction of oneself as actor or observer may be part of the representations of life experiences that are stored as part of declarative knowledge and exist throughout the cognitive system. However, people also form conceptions of themselves as the *object* of attention. This self-knowledge may consist of attributes, social categories, relations to others, as well as more global evaluative concepts. The content and favorability of self-concepts, and the self-esteem associated with them, has long been a focus of attention in social psychology (Sedikides, 1993; Tesser, 1988; Tesser & Campbell, 1983). Although the impact of self-esteem as a motivational variable that generalizes over cultures is subject to debate (Heine, Lehman, Markus, & Kitayama, 1999), the importance of understanding the nature of people's self-concepts in predicting their behavior is incontrovertible. A full discussion of cultural differences in self-conceptions is beyond the scope of this chapter (see Chiu & Hong, 2007; Heine et al., 1999). However, several issues of concern in this chapter may be worth noting in this context.

Types of self-representation. Ng and Han (this volume; see also Brewer & Gardner, 1996) distinguish two dimensions along which individuals' conceptions of themselves can vary. First, people may think of themselves as either unique individuals or as members of a group or collective. Second, they may think of themselves independently of other persons or in relation to others. Although these dimensions are not often distinguished in conceptualizing cultural differences, the distinction can be important. The first dimension is similar to that reflected by differences in individualism and collectivism (Triandis, this volume; Oyserman & Sorensen, this volume). The second is similar to that proposed by Markus and Kitayama (1991) in their conception of independent versus interdependent selves.

Differences along these dimensions are typically used to distinguish between the types of self-concepts that people form and store in memory and, therefore, the declarative self-knowledge they acquire. However, the dispositions to think about oneself either individually or categorically, or either independently or in relation to others, may be manifestations of more general processes that are acquired as part of *procedural* knowledge and applied to information in many other domains as well as to oneself.

For example, a difference in the conception of self as an individual or part of a collective may reflect a more general difference in individuals' processing of information (oneself or information in general) either "piecemeal" or categorically, a distinction made by Fiske and Pavelchak (1986). Similarly, independent and interdependent self-construals may reflect more general tendencies to think of elements of information independently or in relation to one another and to the context in which they are

presented (Kühnen et al., 2001). The connection between these different processing strategies is not completely clear. For example, individual pieces of information must be interpreted before a piece-meal integration of their implications can be performed. This interpretation could either depend on the context in which the individual pieces of the information are presented or be context independent. By the same token, collective- (category-) based processing is not necessarily relational.

A study by Ji, Zhang, and Nisbett (2004) that separates the categorical and relational dispositions suggests that relational processes predominate over categorical processes in Asian cultures. For example, participants were asked to indicate which two of these three objects go together: a man, a woman, and a baby. Americans tended to group the two adults, suggesting that they think categorically. In contrast, Asians were more likely to group the mother and child, because the former takes care of the latter, suggesting relational processing.

On the other hand, Kühnen and Oyserman (2002) found that activating an interdependent self-construal led individuals to respond more quickly to global features of a stimulus than to details, whereas activating an independent self-concept led persons to respond more quickly to detailed features than to global ones. This suggests that interdependence, or relational thinking, is in fact associated with holistic, global processing. The reason for this association needs some clarification. Be that as it may, however, Ji et al.'s (2004) findings and those reported by Kühnen and Oyserman may not indicate that differences in the way people think about themselves exert a causal influence on the way they think about the world in general. Rather, they may reflect the existence of more general procedures (e.g., productions; see Anderson, 1982, 1983) that are applied to the processing of information, regardless of its referents.

The relative dominance of these information-processing tendencies may vary across cultures. In fact, a general difference in the disposition to engage in relational thinking can explain a variety of behavioral differences between Asians and Westerners. As noted earlier, Asians do not differ from Americans in memory for objects per se, but have better memory for the relations of individual objects to one another, including their positions on the page on which they were presented (Kühnen et al., 2001). Hong, Chiu, Morris, and Menon (2001) found evidence that calling Chinese individuals' attention to their cultural identity increased their focus on obligations, whereas making Americans' identity salient led them to focus on rights. Activating cultural identity of Chinese also increased their disposition to attribute social events to the group rather than to individuals (Hong et al., 2000). Finally, Briley and Wyer (2001) found that exposing Chinese and American participants to symbols of their own culture led Chinese to attach greater value to not being outperformed by others and to greater competitiveness, as well as greater willingness to sacrifice one's personal objectives for others—characteristics that all involve a consideration of oneself in relation to others rather than independently.

Bicultural selves. Perhaps the most provocative research on cultural influences on self-knowledge has come from theory and research on bicultural individuals, that is, individuals who have been intimately exposed to two cultures and the norms and values that predominate in each. One might speculate that biculturals' cognitive system is composed of a mishmash of concepts and knowledge from both cultures, the use of which depends on their applicability and their likelihood of coming to mind. In fact, however, research by both Hong (this volume) and Ng and Han (this volume) suggests that these individuals form separate subsystems of concepts and knowledge that coexist in memory and that once one of these subsystems is activated, it influences a wide variety of judgments and behavior. Furthermore, these subsystems can be activated by simply calling individuals' attention to symbols of the cultures to which they belong. As noted earlier, Hong and her colleagues showed that priming Hong Kong individuals with Chinese and American icons influenced their attributions and behavior in a manner that was consistent with established differences in monocultural representatives of these cultures (Hong et al., 2000; Hong et al., 2006; Wong & Hong, 2005). Even more provocative is Ng and Han's (this volume) evidence that priming Hong Kong biculturals with cultural icons influenced the extent to which they incorporated "mother" into their self-representations, as evidenced not only in self-reference effects (Rogers, Kuiper, & Kirker,

1977) but also in whether exposure to “mother” and “self” activate the same or different areas of the brain (Ng, Yam, & Lai, 2007).

The language that people speak can have similar effects. Trafimow et al. (1997) found that Hong Kong bicultural students referred more frequently to their membership in social and demographic categories, and less frequently to their personal beliefs and attitudes, when they described themselves in Chinese than when they described themselves in English. This finding also suggests that biculturals hold both individual and collective self-concepts that are stored separately in memory and can be independently activated by more general concepts associated with the cultures in which these concepts predominate. These representations may contain decision criteria as well as norms and values. Briley, Morris, and Simonson (2005) found that Hong Kong students were more likely to choose the compromise alternative in a product choice task when the experiment was conducted in Chinese rather than English. (These decisions could also result from a disposition to avoid negative outcomes; see Briley & Wyer, 2001, 2002.)

ECOLOGICAL AND SOCIAL DETERMINANTS OF KNOWLEDGE ACCESSIBILITY

Ecological factors. The chronic accessibility of declarative knowledge may be influenced by frequent exposure to this knowledge in the course of daily life. Similarly, the accessibility of procedural knowledge is influenced by the frequency of engaging in a particular sequence of behavior in response to a configuration of situational and internally generated cues, thereby strengthening the association that is formed as well as the ease of performing the behavior itself. The disposition to use a particular subset of knowledge or to engage in a particular behavior may be partly a function of socialization practices of a sort I discuss presently. However, these practices, in turn, may be a reflection of more fundamental environmental factors that have encouraged their use. The development of these behaviors and attitudes may often be necessary in order to accommodate to the environmental conditions that exist at the time. Once they become chronically accessible, however, they may persist even though the problems that led to their initial acquisition and use are no longer evident.

Triandis (this volume) discusses this possibility in detail. He proposes ten aspects of the ecology that could influence values, implicit theories, and behavioral dispositions that are dominant in a society, including resource availability and mobility, cultural isolation, climate, and population density. Based on this analysis, he generates numerous hypotheses, some supported by evidence and others yet to be tested, concerning the effects of these variables.

Two other chapters in this volume, by Tavassoli and by Oishi and Kisling, discuss two of these factors, climate and residential mobility, in more detail. Tavassoli, for example, notes that countries in cold climates are characterized by cultural “tightness” (Triandis, 1994), in which undisciplined behavior is discouraged, whereas warm climates are “looser” in terms of individual freedom and tolerance for idiosyncratic behavior. This could reflect differences in the need for discipline in order to survive in these climates. He also notes that cultural differences in aggression and the expression of affect are traceable to climatic differences. That is, heat amplifies sensory responses to positive and negative stimulation. Therefore, people need lower levels of external stimulation to produce a given level of emotional expression. At the same time, people in cold climates may have less than the optimal level of stimulation and require *more* external stimulation, as reflected in a greater desire for novel foods, more intense music, and so forth (Zuckerman, 1994).

Oishi and Kisling (this volume) note that chronic cultural differences in individualism and collectivism could result in part from ecological differences in residential mobility. China, for example, which is largely in the plains, developed carefully controlled systems of irrigation that required social cooperation. At the other extreme, America was characterized by a high degree of residential mobility as it expanded toward the west, and survival required less cooperation and more independence. These environmental factors could give rise to collectivist and individualistic dispositions, respectively, that have persisted despite changes in the societies that have made their original functions unimportant.

As Oishi and Kisling point out, however, differences in residential mobility can also occur within a country. For example, residents of metropolitan areas, in which mobility is high, regard personal self-identity as more important than do residents of rural areas who are more stable (Kashima et al., 2004). In a particularly interesting study, Oishi, Lun, and Sherman (2007) found that individuals who had moved frequently felt happier when their partner in an interaction described them accurately in terms of skill-related (individualistic) attributes, whereas nonmovers were happier when their partner accurately described their social background and group affiliations.

Socialization practices. The socialization processes that result from ecological and environmental factors are likely to be reflected in child-rearing practices that encourage the values and behavioral dispositions that individuals manifest in later life (Keller, 2007). These differences were identified in research by Peggy Miller and her colleagues on parent-child interactions in Asian (Taiwanese) and Western (North American) cultures (Miller, 1995; Miller, Fung, & Mintz, 1996; Miller, Sandel, Liang, & Fung, 2001; Miller, Wiley, Fung, & Liang, 1997). Miller et al. (2001) observed parents collaborating with their children in telling stories about their child's misbehavior. Taiwanese parents typically related their children's transgressions to their past misdeeds and encouraged them to be self-critical, stressing the child's responsibility for the behavior. Thus, the transgression was seen as a manifestation of a more chronic disposition that had implications for the child's moral character and consequently needed to be corrected. In contrast, the stories encouraged by American parents focused less often on past transgressions and more on the immediate misdeed. Moreover, the transgression was often portrayed humorously, in a way that portrayed the child in a favorable light despite the incident. Furthermore, whereas Taiwanese mothers described their own past behavior positively and used it as a standard to be emulated, American parents' self-stories tended to convey their own misdeeds, indicating that they, like their child, are not perfect and that to err is human.

To the extent these socialization differences are pervasive, they are likely to give rise to different reactions to situations in which there are potentially both positive and negative outcomes. That is, Asians may learn that mistakes and misdeeds are things to be avoided and, therefore, may learn to be cautious and to avoid negative consequences of their behavior. Americans, on the other hand, may learn that negative outcomes have fewer implications for their self-worth and may focus to a greater extent on positive outcomes. These dispositions could persist into adulthood, producing chronic differences in the attention to negative consequences of behavior and in the disposition to avoid the risk of incurring them. Some cultural differences have been identified in memory for positive or negative features of a situation (Aaker & Lee, 2001), attempts to minimize the cost of a bad decision (Briley, Morris, & Simonson, 2000), and the endorsement of proverbs that favor such decisions (Briley et al., 2000; Briley & Wyer, 2001). These different dispositions could also account for Americans' tendency to take more responsibility for positive outcomes of their behavior than negative outcomes, but for Asians' tendency to take more responsibility for negative outcomes than positive ones (Oishi, Wyer, & Colcombe, 2000). As Briley et al. (2000) show, however, these differences may only be evident if participants are motivated to consult their previously acquired knowledge to use as a basis for their decisions.

One other cultural difference is suggested by Miller et al.'s findings. That is, whereas Taiwanese parents appeared to set themselves and others up as role models, American parents were less inclined to do so. One possible consequence of this could be a relatively greater tendency for Taiwanese children to evaluate themselves in relation to others rather than as unique individuals. This tendency could affect the children's self-construals. That is, it might dispose Asians to have more interdependent self-concepts rather than independent self-definitions (Markus & Kitayama, 1991), to evaluate social roles as more important than self-esteem per se (Heine et al., 1999). It could also account for Oishi and Kisling's (this volume) observation that Americans consider the expression of emotions such as pride favorably, whereas Asians (e.g., Japanese) value positive emotions only if they have desirable social implications. (Thus, pride is not valued, as it disrupts harmony.)

COMPREHENSION AND COMMUNICATION

According to Grice (1975), interpersonal communications are governed by a set of implicit principles that are applied both by communicators in transmitting their messages and by recipients in interpreting these messages. For example, communications should be informative (they should convey information that the recipient does not already know), be relevant to the topic at hand, and convey the truth as the communicator sees it. Thus, if the literal implications of a message appear to violate one of these principles, recipients are likely to assume that their construal of the message's implications are incorrect and to reinterpret its intended meaning in a way that is more consistent with the principle that was violated. For example, if a person comes in from the rain and comments, "What a beautiful day!" which violates the principle that messages are truthful, listeners are interpreting the statement as sarcastic. Or, a person who denies engaging in an action that would normally go without saying (e.g., "I treat my Chinese employees just as well as Americans"), whose literal meaning might violate the informativeness principle, may lead recipients to suspect that there was some reason why the denial was necessary and, therefore, to increase their belief that the speaker might actually discriminate (Gruenfeld & Wyer, 1992).

However, the interpretation of a communication's intended meaning can often require some knowledge about the communicator. A liberal Democrat's assertion that George W. Bush was one of America's greatest presidents is likely to be viewed as sarcastic, whereas a neoconservative's expression of a similar opinion may be taken literally. These considerations imply that even if the general communication principles proposed by Grice are applied universally, misconceptions can arise unless both the communicator and the recipient share a common body of knowledge in the domain to which their messages pertain. If the communicator assumes either much more or much less knowledge than the recipient actually has, or if the recipient makes incorrect assumptions about the subset of knowledge on which the communicator's message is based, miscommunication is likely to occur. The implications of this possibility for cross-cultural communication are readily apparent (see Smith, Bond, & Kağıtçıbaşı, 2006).

NORMATIVE INFLUENCES ON COMMUNICATION

Although Gricean principles guide the interpretation of a message, they also guide responses of a communicator. These possibilities have been demonstrated in numerous experiments by Norbert Schwarz and his colleagues on the determinants of responses to opinion surveys. For example, individuals who are asked a question in a survey, as well as in informal conversation, must construe what it is that the questioner already knows and generate a response that provides new information. Thus, I am likely to respond to the question "Where do you live?" by saying "America" if I am asked by someone while traveling in China, but by giving my street address if I am asked by a fellow resident of Urbana, Illinois.

As Norbert Schwarz and his colleagues have demonstrated in numerous studies (for reviews, see Schwarz, 1996, 1999, 2003), the wording of a question and the context in which it is conveyed can lead respondents to infer that different information is requested and to respond accordingly. Thus, for example, people are more likely to assume that a questioner is asking about more extreme examples of irritation if he is asked if he is irritated more or less often than once a month than if he is asked whether he is irritated more or less often than twice a day, and this assumption is likely to influence the extremity of the instances they take into account in their estimate (Schwarz, Strack, Müller, & Chassein, 1988).

An example of particular relevance to an understanding of cross-cultural communication concerns the role of social desirability (for a more general discussion of this role, see Smith, this volume). For example, the range of alternative responses that are provided in a survey question may affect respondents' perceptions of what is normative and, therefore, what is likely to be considered desirable by the survey administrator. Thus, individuals who are asked how much they pay for

groceries each week may infer that they pay more than average if the scale alternatives range from “less than \$20” to “more than \$75” but may infer they pay less than average if the alternatives range from “less than \$75” to “more than \$300.” If conformity to normative expectations is more predominant in one culture than the other, comparisons across cultures could be misleading. Thus, for example, suppose Asians and Americans both spend about \$100 a week, but that Asians are more likely to respond in a socially desirable manner than Americans are. Then, they might report spending less than Americans if the first scale is used in the survey, but more than Americans if the second scale is used (but see Ji et al., 2000, for a qualification on this prediction).

More general contextual factors can also have an effect. For example, bicultural individuals may perceive that the responses they provide are likely to be evaluated by an Asian audience if the survey is conducted in Chinese than if it is conducted in English. These expectancies could influence the responses of individuals toward a manner that is consistent with these expectations. The effects of language on behavior discussed earlier could be partly attributable to this difference. That is, the language in which an experiment is conducted might affect participants’ perceptions of the values held by the persons to whom they are communicating and thus may respond in a way that is consistent with these values. In fact, Briley et al. provide evidence in support of this possibility in the study mentioned earlier in this chapter.

Although the propositions proposed by Grice are likely to exert an influence across cultures, other norms that govern communications and their interpretation may be culture-specific. As Kashima (this volume) notes, individuals who interact with one another must establish a common ground of mutual understanding for the interaction to be effective. The grounded knowledge may pertain to both the referents of a communication and the context in which it is transmitted. When the necessary common ground is not established, miscommunications are inevitable.

Miscommunications are particularly likely between individuals whose culture-related meaning systems differ and who are likely to interpret messages from one another in ways that the communicator does not intend. Moreover, because of these different meaning systems, attempts to reinterpret the message in a way that is consistent with normative communication principles may not be helpful. Thus, parties to the interaction may have little awareness that a miscommunication has occurred and have little insight into the reason why the interchange has been unsuccessful.

Brislin (this volume) cites an interesting example of the sorts of communication that can occur. In Western (American) societies, friends are often expected to offer constructive criticism to one another and are likely to accept this criticism more readily from friends than from casual acquaintances. In the Philippines, however, criticism is only accepted from casual acquaintances, and therefore it is offered only by people who don’t expect to become friends. Lack of awareness of this normative difference can obviously lead to differences in interpretation of communications with enduring effects on the nature of the interaction between the parties involved. In these circumstances, the cultural assimilator discussed by Brislin (this volume), which is an attempt to acquaint members of different cultures with differences in one another’s behavior and the culture-specific meaning underlying it, may be a valuable tool.

EFFECTS OF LANGUAGE ON INTERPERSONAL COMMUNICATION

The meaning that is extracted from a message can often depend on the specific language that the communicator chooses to use. Furthermore, this language not only may convey descriptive features of the communication’s referent but also may stimulate recipients to make inferences that go beyond the literal meaning of these features.

Semin (this volume) notes that a person could communicate his or her observation of someone’s behavior in five ways, each of which may be descriptively accurate but may stimulate different inferences. Suppose a person observes A slap B in the face. The observer could communicate this action to another as (a) A hit B, (b) A hurt B, (c) A is angry at B, (d) A hates B, or (e) A is aggressive. Each of these descriptions could be true. However, the meaning they transmit to the recipient

differs. For one thing, “hits” and “is angry at” are situation-specific, whereas “hurt” and “hates” are more general. Furthermore, “hit” and “hurt” are descriptive, whereas “is angry at” and “hates” are affective. Finally, “hit” describes an action of A, whereas “hurt” requires a consideration of the recipient’s reactions as well.

Semin (this volume) notes that the choice of words to describe an action can sometimes occur spontaneously and can depend on the observer’s perspective (e.g., the relative attention paid to A or B). The meaning extracted by the recipient can likewise depend on knowledge of the communicator’s perspective. In the absence of this knowledge, however, the communication may stimulate different sets of implicit questions. “A hit B,” for example, may stimulate curiosity about why this behavior occurred, whereas “A hurt B” is likely to stimulate interest in how badly B is harmed.

As Semin notes, cultural differences could exist in the types of descriptions that individuals are habitually likely to generate. However, these linguistic habits may reflect general dispositions to think about social events in different ways and to communicate different information about them. Miscommunications among representatives of different cultures could be a result of these culturally sustained linguistic dispositions.

NONVERBAL COMMUNICATION PROCESSES

Cross-cultural communication is complicated by the fact that many communications are governed by productions which are often performed with little if any cognitive deliberation and even without awareness. The linguistic differences of the sort analyzed by Semin (this volume) could result from the use of such productions. However, these productions are particularly likely to come into play when the information being transmitted is nonverbal. The automaticity of nonverbal behavior is evidenced by Matsumoto and Willingham’s (2006) findings (see Matsumoto, this volume). That is, individuals’ emotional reactions to success and failure are reflected in the facial expressions they elicit immediately after the reactions occur. These expressions appear to be uncontrolled responses to the configuration of internally generated feelings the individuals are experiencing. Furthermore, the facial expressions that the individuals elicit are also likely to be interpreted similarly across cultures (Ekman, 1972; but see Wang et al., this volume, for a qualification).

However, although the subjective emotional reactions to an emotion may elicit an unlearned facial expression that generalizes over cultures, the situational factors that give rise to the subjective reactions themselves may vary. As Ortony, Clore and Collins (1988; see also Roseman, 1979) suggest, emotional reactions are preceded by a cognitive appraisal of the situation and an assessment of its antecedents (Lazarus, 1982, 1991). For example, an event that has negative consequences for oneself but was caused by someone else may elicit anger. However, a similar event for which one is personally to blame may elicit disappointment, and an event with negative consequences for another for which one is personally responsible may elicit guilt.

Each of these emotions is likely to be associated with a different configuration of internal physiological responses and to elicit a different facial expression. However, the cognitive appraisal that gives rise to each emotion requires an interpretation of the situation in terms of concepts and knowledge that can often be culture-specific. Further, although the emotional expression elicited may be universal, the configuration of concepts that elicited the appraisal that gave rise to this expression may also be culture-specific. Consequently, although individuals who observe another’s facial expression may often be able to identify the emotion it conveys, their inferences about the conditions that gave rise to it may depend on their cultural background. Thus, culture may enter into the communication process at two points, as shown in Figure 25.3. If the culture that exerts an influence at one point differs from the culture that comes into play at the other, miscommunication can occur.

Automatic versus controlled responding. Although people may often attempt to control their facial expressions, they may not be completely successful. This is partly because individuals are not fully aware of the set of nonverbal behaviors they perform and thus cannot monitor them effectively. This is particularly evident in research on the detection of deception (DePaulo & Friedman,

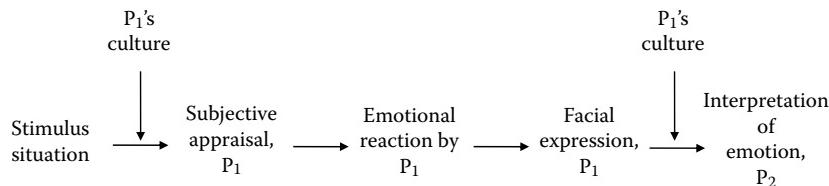


FIGURE 25.3 Sequence of reactions that mediate an emotion-eliciting emotional expression by one person, P_1 , and the interpretation of this emotion by another, P_2 .

1998; DePaulo & Kirkendol, 1989). However, the uncontrolled behavior that people manifest may be misinterpreted by the audience. In an unpublished study by Krauss, Geller, and Olsen (1976), participants were asked to predict whether a target person was lying or telling the truth based on the nonverbal behavior the target conveyed when making a series of assertions. Participants were inaccurate in detecting the target's deception. However, they judged the target to be less physically attractive when he was lying than when he was telling the truth. Thus, although recipients were sensitive to these behaviors, they misinterpreted them.

In short, individuals are likely to respond to a configuration of nonverbal behaviors without articulating the particular features that influence these responses. Cultural differences may exist in both the expressions that individuals spontaneously elicit and how these expressions are interpreted by others. The research by Ambady and her colleagues (see Wang et al., this volume) provides evidence of these differences. The emotions that induce facial expressions can be identified at an above-chance level, independently of the culture of the target person and the judge (Ekman, 1972). However, there are subtle differences in these expressions that permit representatives of a given culture to recognize emotions expressed by members of their own culture more accurately than expressions by members of another (Elfenbein & Ambady, 2002). Wang et al. (this volume) suggest the existence of nonverbal "dialects" that are culture-specific and produce differences in reactions analogous to those that result from linguistic dialects.

Cultural differences also exist in other types of nonverbal behavior. These differences can also be conceptualized in terms of the productions (Anderson, 1983) that individuals acquire through learning and that are later elicited automatically by situational cues with which they are associated. Expressions of affirmation or disagreement, greetings and other gestures provide examples. In a study by Marsh, Elfenbein, and Ambady (2007), Australians and Americans watched film clips of members of their own or the other culture either walking or waving. Individuals could identify the nationality of the actors at an above-chance level. Furthermore, they made trait judgments of the actors that were consistent with cultural stereotypes. For example, walking Americans were seen as more dominant than walking Australians, and waving Australians were seen as more friendly than waving Americans.

Cultural differences in the interpretation of nonverbal behavior can have adverse consequences for social interaction. To give but one example, eye contact is often used as a nonverbal cue to emotional intensity. As Patterson (1966) notes, there is an optimal level of eye contact at which individuals feel at ease, and either more or less contact than this can lead to discomfort. Cultural differences may exist in this optimal level. Europeans, for example, habitually maintain more eye contact than Americans. Thus, suppose an American and European interact, and the European's eye contact exceeds the level at which the American considers optimal. Consequently, the American is likely to feel uncomfortable and to interpret the European as coming on too strongly. In contrast, the European may consider the eye contact manifested by the American to be less than optimal and may interpret it as aloofness and unfriendliness. Thus, these misperceptions could have a negative impact on the parties' perceptions of each other and their desire for future interaction. Note that these nonverbal behaviors are likely to be governed by productions, and parties to the interaction

may not consciously isolate them from other behaviors that occur. Thus, neither party to the interaction may be aware of the source of their negative reactions (see also Sussman & Rosenfeld, 1982).

A particularly provocative feature of Ambady's research is the evidence that an accurate perception of information can be made on the basis of very thin slices of nonverbal behavior (for a review, see Ambady, Krabbenhoft & Hogan, 2006). For example, independent judges' ratings of teachers' competence, confidence, and enthusiasm, based on a 30-second film clip, predicted students' course satisfaction (Ambady & Rosenthal, 1993). Judgments of physical therapists, based on a 20-second slice of their interaction with a patient, predicted their success with their patients as indicated by their patients' improvement over the course of therapy (Ambady, Koo, Rosenthal, & Winograd, 2002). In each case, the pattern of nonverbal behavior that the individuals typically manifested accurately reflected more general behavioral dispositions that influenced their interactions with the students or patients with whom they had daily contact.

These effects could be due in part to tendencies for individuals who expect others to have a particular attribute to often respond to them in a way that is consistent with this attribute and, as a result, elicit the behavior they expect (Rosenthal & Rubin, 1978; Snyder & Swann, 1978; Snyder, Tanke & Berscheid, 1977). As a consequence, people who are expected to be interpersonally appealing by the persons with whom they interact respond to them in a way that confirms this expectancy (Snyder et al., 1977), and people who are expected to be aggressive behave aggressively (Snyder & Swann, 1978).

The implications of these behavior-confirmation processes for cross-culture communication are fairly obvious. Suppose individuals perceive (or misperceive) the attributes of a representative of another culture on the basis of the person's nonverbal behavior, and these perceptions give rise to expectations. They may then behave toward the individual in ways that elicit reactions consistent with these attributes, thus confirming their initial perceptions. These attributions could sometimes generalize to members of the culture as a whole. To this extent, the perpetuation of cultural stereotypes could be a byproduct of such behavior confirmation processes.

MOTIVATIONAL FACTORS

The preceding discussion has focused largely on cognitive influences on behavior and the role of cultural differences in the nature of these influences. Several chapters in this volume consider differences in motivation either directly or indirectly (e.g., Markman et al.; Lee & Semin; Bagozzi, Verbeke, & Belschak; Leung & Brew). Although motivational differences are implicit in much of the preceding discussion in this chapter as well, a few additional comments may be worth making.

MOTIVATIONAL CONSEQUENCES OF EMOTION

The emotions that individuals experience can obviously have motivational consequences. However, the nature of these consequences may vary over cultures. Bagozzi et al.'s (this volume) analysis of the determinants and effects of pride and shame is noteworthy in this regard. They attribute differences between Dutch and Filipinos in the antecedents and consequences of emotions to differences in the emphasis placed on independence and interdependence that pervades these cultural groups. In societies that emphasize independence, shame is typically the result of an inability to meet the standards set by significant others, and is manifested in withdrawal from contact and self-protectiveness that can be detrimental to interpersonal interaction and performance in situations that require this interaction. In societies that emphasize interdependence, however, shame is often socially based and is viewed as a threat to effective interpersonal relations. Therefore, it is likely to stimulate attempts to repair and reestablish harmonious interpersonal relations, which have a positive impact on the quality of these relations and on performance that depends on them (see also Kam & Bond, *in press*).

Correspondingly, pride in societies that value independence stimulates expressions of individuality and uniqueness and a tendency to distinguish oneself from others. In societies that stress interdependence, however, pride often comes from the fulfillment of social obligations and role responsibilities, and motivates further efforts to promote harmony. Thus, pride, like shame, is likely to be detrimental to interpersonal relations in independence-oriented cultures but to facilitate these relations in interdependence-focused cultures (see also Mosquera, Manstead, & Fischer, 2000).

Bagozzi et al. (this volume) confirm these effects in an analysis of the interrelations among salespersons and their superiors in an organizational setting. However, their results seem likely to have implications for interpersonal relations in less formal situations as well.

REGULATORY FOCUS AND THE AVOIDANCE OF NEGATIVE OUTCOMES

One of the more widely recognized motivational theories to emerge in recent years is Higgins's (1997) conception of regulatory focus, which ties motivation directly to cognition. Higgins postulates differences in the relative emphasis placed on positive consequences of a behavior or decision (*a promotion focus*) as opposed to the negative consequences that might arise (*a prevention focus*). Although these motives may often stimulate the same behavior, this is not necessarily the case. For example, if one anticipates a behavior to have both positive and negative consequences, the promotion-focused individual is likely to engage in the behavior but the prevention-focused individual is likely to maintain the status quo. Or, to borrow an example from Briley et al. (2000), suppose two options are available, one of which has both very favorable and very unfavorable attributes and the other of which has only moderately favorable and moderately unfavorable attributes. A promotion-focused person is likely to choose the first option, whereas a prevention-focused person is likely to choose the second.

A detailed and provocative analysis of the effects of promotion and prevention orientations is provided by Lee and Semin (this volume) and requires little elaboration. These differences in orientation can often be influenced by the way in which choice outcomes are framed and the interpretation that is based on them. For example, an individual may be likely to focus on positive consequences of an act if the alternatives are framed as gains versus nongains, but on negative consequences when they are framed as nonlosses versus losses. Although differences in framing are often induced experimentally, they can occur outside the laboratory. For example, they could underlie Matsumoto's (this volume) finding that Olympic silver medal winners express less positive emotions than bronze medal winners do. The former individuals, who are promotion focused, apparently viewed their outcome as a nongain and felt disappointed. Bronze medalists, however, who came close to not getting any medal at all, may have framed their outcome as a nonloss and experienced relief.

Higgins (1997) attributes differences in the focus on positive and negative outcomes to differences in the disposition to compare oneself to a self-ideal (which stimulates a desire to seek positive outcomes) or to an "ought" self (which is defined by the standards imposed by others). This difference is interesting to consider in the context of the difference in Asian and Western child-rearing practices identified by Miller et al. (2001) noted earlier. That is, Asian parents who set themselves up as positive role models may stimulate their children to compare themselves to an "ought" self, which is likely to induce a prevention focus. American parents who minimize the importance of their children's misdeeds may be more likely to encourage comparisons with an "ideal" self, leading their children to acquire a chronic promotion focus. Results reported by Lee, Aaker, and Gardner (2000) confirm this cultural difference.

An interesting manifestation of this difference was obtained by Shen, Wan, and Wyer (2008) in a study of the willingness to accept a favor. Canadian and Asian participants were asked if they would accept a favor from a casual acquaintance. The authors argued that individuals would anticipate feeling both appreciative as a result of receiving the behavior (a positive feeling) but also indebted (a negative feeling). Consistent with the cultural difference in regulatory focus described above,

Canadians were inclined to accept the favor whereas Asians were not inclined to do so. In other words, Canadians' decisions were motivated by their feelings of appreciation and Asians by their desire to avoid feelings of indebtedness.

Asians' prevention focus may stem in part from feelings of responsibility or obligation to others (Chao, Zhang, & Chiu, *in press*; Hong et al., 2001). These feelings, in turn, may derive from the disposition to think of themselves as part of a collective in which people are responsible for one another's welfare. The salience of one's membership in a group may therefore induce these feelings and, consequently, a prevention focus. This assumption was confirmed by Aaker and Lee (2001), who found that inducing participants to think about their membership in a group increased their attention to situations describing potential negative outcomes (e.g., avoidance of loss) relative to situations that emphasized possible positive outcomes. Moreover, Briley and Wyer (2002) found that inducing people to believe they were participating as members of a group induced a disposition to minimize the likelihood of negative outcomes that generalized over a number of ostensibly unrelated tasks. However, priming Chinese and Americans with icons of their own culture, which presumably increased their consciousness of their cultural identity, had essentially the same effect, and this was true regardless of the cultural group involved. Awareness of one's cultural identity, like calling attention to one's membership in a more circumscribed group, can apparently activate concepts associated with responsibility to others and, therefore, can induce a prevention focus that generalizes to unrelated tasks.

These results should nonetheless be reconciled with evidence that exposure to cultural icons activates culture-specific norms and values that influence judgments and behavior decisions (cf. Hong et al., 2000; Briley & Wyer, 2001). The effects presumably reflect the accessibility and use of culture-specific declarative knowledge as a basis for judgments when feelings of social responsibility are not experienced (e.g., when completing a questionnaire). When individuals are confronted with decision situations in which this motivation is likely to play a role, the motivation may override the effects of declarative knowledge accessibility.

The different motivational orientations that characterize Asians and Westerners are manifested not only in the importance they attach to positive and negative consequences of their behavior but also in more general reactions to their social and physical environment. Americans, who are typically promotion focused, tend to perceive themselves as responsible for positive consequences of their behavior, whereas Asians, who are prevention focused, tend to see that their outcomes are controlled to a greater extent by situational factors. As Briley (this volume) notes, these dispositions are reflected in these individuals' perceptions of the future.

For example, Asian cultural representatives perceive their future outcomes to be determined to a greater extent by their past behavior than Americans do (Maddux & Yuki, 2006; see also Dyal, 1984). These dispositions are also reflected in their behavioral decisions. Briley and Aaker (2007), for example, found that Anglo Americans were more inclined than Asian Americans to base their decisions on their feelings at the moment and less inclined to think about the past. This could be a manifestation of the relatively greater tendency for Anglo Americans to feel in control of their outcomes and to worry less about situational factors implied by their past experiences.

SUBJECTIVE WELL-BEING AND ACCULTURATION MOTIVES

A second set of motivational factors with quite different effects is raised by Sedikides et al.'s (this volume) analysis of acculturation. Individuals who move to a new culture and find it difficult to assimilate into the culture may feel alienated and their subjective well-being in this culture may suffer. As Tov et al. (this volume) suggest, these feelings may often translate into negative attitudes toward the government and the society as a whole. Feelings of well-being may depend on other situational factors as well. For example, these feelings appear to be less in countries where economic inequality is relatively high and the gross national product is low. In Western countries, however, individuals' feelings of well-being are associated with self-esteem. In contrast, collectivist societies

emphasize the maintenance of social relations while deemphasizing the importance of individual self-esteem (Heine et al., 1999). In these societies, harmony in social relations is more important than self-esteem to feelings of well-being and life satisfaction (see also Kwan, Bond, & Singelis, 1997).

However, the difficulty of adjusting to a new culture may influence feelings of well-being over and above these factors. An attempt to maintain identity with one's past culture without attempting to assimilate to the new culture at all is obviously detrimental to adjustment.* As Sedikides et al. (this volume) note, however, it may be equally detrimental to dissociate oneself entirely from one's home culture, thereby cutting oneself off from an important source of social support. That is, adjustment is enhanced by developing relations with representatives of one's new culture without sacrificing one's original cultural identity (see also Berry, 1997).

Sedikides et al. suggest that the disposition to engage in nostalgia may help to accomplish this. Nostalgia, which is characterized as a sentimental reminiscence of a positive emotional experience in one's home culture, may increase feelings of continuity between the past and the present, increase feelings of interpersonal adequacy, and generally elicit positive affect and feelings of self-regard. Thus, it may increase acculturation. Furthermore, Tov et al.'s (this volume) analysis suggests that trust in the government could be a byproduct of the subjective well-being that results from these cognitive activities. This trust could itself be an indication of acculturation.

CONFLICT AND COOPERATION IN SOCIAL INTERACTION

The motivational and cognitive factors that have been identified in experimental research may also exist in social settings outside the laboratory. As Tsui (this volume) points out, not only the conceptual and theoretical issues confronted in laboratory and applied situations, but also the problems of interpreting culture-related phenomena and the solutions to these problems, are likely to be similar in both settings.

One such problem, and also a solution, is discussed by Leung and Brew (this volume). As they note, most traditional research on interpersonal conflict has been conducted within a Western conceptual framework in which individual-self interest is assumed to be the primary motivational factor and the focus is placed on the outcomes of negotiation and conflict resolution. However, although competitiveness and a desire not to be outdone are also characteristic of Asian societies (Briley & Wyer, 2001), negotiators in these societies place much greater emphasis than Western negotiators on the *process* of conflict resolution. In particular, the maintenance of harmony among the negotiators can often be as or more important to the effectiveness of the negotiation than the outcome per se (cf. Leung, 1997).

Thus, without denying the importance of self-interest and personal goal attainment, Leung and Brew (this volume) propose two additional factors that characterize conflict resolution in Asian societies. One, *harmony enhancement*, attempts to strengthen the relationships among the negotiators. The second, *disintegration avoidance*, concerns attempts to prevent the quality of the relations among the parties from deteriorating. These dimensions appear very similar conceptually to promotion and prevention focus discussed in a preceding section of this chapter (see also Lee & Semin, this volume).

These cultural differences in orientation are of obvious importance. In the global marketplace, individual negotiators are members of different cultures, whose values and negotiation strategies differ and whose expectations for one another likewise differ. The use of culture assimilators of the sort outlined by Brislin (this volume) may become increasingly important in stimulating negotiators' understanding of the different perspectives that one another brings to bear on negotiation and

* A contemporary example, as Harry Triandis (personal communication) notes, is reflected in the dissatisfaction of Muslims who have immigrated to the West. These individuals, who come from simple cultures, are likely to find the complexities of Western culture overwhelming, creating stress and leading them to spend disproportionate time in the mosque, where the social system is simple. As a result, they become more influenced by radical Muslims and increase their antagonism toward the dominant culture that surrounds them.

interpersonal relationships more generally. As noted earlier, this technique has been used effectively to sensitize individuals to understand the meaning conveyed by others' interaction behavior and how their own behavior is likely to be perceived.

However, more intensive exposure to different cultures may often be necessary. Friedman and Liu (this volume) provide a very sophisticated analysis of the benefits of cultural diversity in management situations, drawing upon laboratory as well as field research in conceptualizing the factors that facilitate individuals' ability to switch cultural perceptions. Their analysis has implications for the role of biculturalism in management situations, increasing flexibility and adaptability both in industrial settings and more informal interactions. At the same time, they acknowledge that the benefits of cultural diversity are not evident in short-term, superficial exposures to different cultural milieus, but only as a result of in-depth immersion into the societies in question. When this is not possible, cultural assimilators of the sort proposed by Brislin may be particularly valuable.

CONCLUDING REMARKS

My discussion in this chapter does not begin to do justice to the theoretical and empirical issues raised by the contributors to this volume and the wealth of evidence they have brought to bear on them. However, it hopefully provides a framework within which much of the work can be conceptualized. The information-processing perspective I have taken focuses on situational and chronic individual differences in the accessibility of culture-related knowledge and the procedures that govern its use in comprehending information, the organization of the information in memory, construing its implications, and computing a judgment or behavioral decision. A more rigorous development of an information-processing formulation of cultural influences, and a more systematic integration of present and future research findings in terms of such a formulation, may be fruitful.

In any event, an understanding of the cognitive and motivational influences of culture on judgments and decisions, and the processes that mediate these influences, is destined to continue to be one of the most important and exciting areas of exploration to emerge in psychology and the social sciences more generally. I look forward to the adventure.

REFERENCES

- Aaker, J. L., & Lee, A. Y. (2001). I seek pleasures, we avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 27, 33–49.
- Ambady, N., Koo, J. J., Rosenthal, R., & Winograd, C. (2002). Physical therapists' nonverbal communication predicts geriatric patients' health outcomes. *Psychology and Aging*, 17, 443–452.
- Ambady, N., Krabbenhoft, M. A., & Hogan, D. (2006). The 30-sec sale: Using thin-slice judgments to evaluate sales effectiveness. *Journal of Consumer Psychology*, 16, 4–13.
- Ambady, N., & Rosenthal, R. (1993). Half a minute: Predicting teacher evaluations from thin slices of nonverbal behavior and physical attractiveness. *Journal of Personality and Social Psychology*, 64, 431–441.
- Anderson, J. R. (1982). Acquisition of cognitive skill. *Psychological Review*, 89, 369–406.
- Anderson, J. R. (1983). *The architecture of cognition*. Cambridge, MA: Harvard University Press.
- Bargh, J. A., & Pietromonaco, P. (1982). Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. *Journal of Personality and Social Psychology*, 43, 437–449.
- Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review*, 46, 5–34.
- Bond, M. H., & Cheung, M. K. (1984). Experimenter language choice and ethnic affirmation by Chinese trilinguals in Hong Kong. *International Journal of Intercultural Relations*, 8, 347–356.
- Brewer, M. B., & Gardner, W. (1996). Who is this "we"? Level of collective identity and self representations. *Journal of Personality and Social Psychology*, 71, 83–93.
- Briley, D. A. & Aaker, J. L. (2007). Unpublished data.
- Briley, D. A., Morris, M. W., & Simonson, I. (2000). Reasons as carriers of culture: Dynamic versus dispositional models of cultural influence on decision making. *Journal of Consumer Research*, 27, 157–178.

- Briley, D. A., Morris, M. W., & Simonson, I. (2005). Cultural chameleons: Biculturals, conformity motives, and decision making. *Journal of Consumer Psychology, 15*, 351–362.
- Briley, D. A., & Wyer, R. S. (2001). Transitory determinants of values and decisions: The utility (or nonutility) of individualism and collectivism in understanding cultural differences. *Social Cognition, 19*, 198–229.
- Briley, D. A., & Wyer, R. S. (2002). The effect of group membership salience on the avoidance of negative outcomes: Implications for social and consumer decisions. *Journal of Consumer Research, 29*, 400–415.
- Carlston, D. E., & Smith, E. R. (1996). Principles of mental representation. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 184–210). New York: Guilford Press.
- Chao, M. M., Zhang, Z.-x., & Chiu, C.-y. (in press). Personal and collective culpability judgment: A functional analysis of East Asian–North American differences. *Journal of Cross-Cultural Psychology*.
- Chiu, C.-y., & Hong, Y.-y. (2007). *Social psychology of culture*. New York: Psychology Press.
- Choi, I., & Nisbett, R. E. (1998). Situational salience and cultural differences in the correspondence bias and actor-observer bias. *Personality and Social Psychology Bulletin, 24*, 949–960.
- Choi, I., & Nisbett, R. E. (2000). Cultural psychology of surprise: Holistic theories and recognition of contradiction. *Journal of Personality and Social Psychology, 79*, 890–905.
- Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological Bulletin, 125*, 47–63.
- Collins, A. M., & Loftus, E. F. (1975). A spreading-activation theory of semantic processing. *Psychological Review, 82*, 407–428.
- DePaulo, B. M., & Friedman, H. S. (1998). Nonverbal communication. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 2, pp. 3–40). New York: McGraw-Hill.
- DePaulo, B. M., & Kirkendol, S. E. (1989). The motivational impairment effect in the communication of deception. In J. Yuille (Ed.), *Credibility assessment* (pp. 51–70). Belgium: Kluwer.
- Dyal, J. A. (1984). Cross-cultural research with the locus of control construct. In Lefcourt, H. M. (Ed.), *Research with the Locus of Control Construct, 3, Extensions and Limitations* (pp. 209–306). Orlando, FL: Academic Press.
- Ekman, P. (1972). Universals and cultural differences in facial expressions of emotion. In J. Cole (Ed.), *Nebraska symposium on motivation*. Lincoln: University of Nebraska Press.
- Elfenbein, H. A., & Ambady, N. (2002). Is there an in-group advantage in emotion recognition? *Psychological Bulletin, 128*, 243–249.
- Fiske, S. T., & Pavelchak, M. A. (1986). Category-based versus piecemeal-based affective responses: Developments in schema-triggered affect. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (pp. 167–203). New York: Guilford.
- Grice, H. P. (1975). Logic and conversation. In P. Cole & J. L. Morgan (Eds.), *Syntax and semantics: Speech acts* (pp. 41–58). New York: Academic Press.
- Gruenfeld, D. H., & Wyer, R. S. (1992). Semantics and pragmatics of social influence: How affirmations and denials affect beliefs in referent propositions. *Journal of Personality and Social Psychology, 62*, 38–49.
- Heine, S. J., Lehman, D. R., Markus, H., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review, 106*, 766–794.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 55*, 1217–1233.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1–46). San Diego: Academic Press.
- Higgins, E. T., Bargh, J. A., & Lombardi, W. (1985). The nature of priming effects on categorization. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 11*, 59–69.
- Hintzman, D. L. (1986). “Schema abstraction” in a multiple-trace model. *Psychological Review, 93*, 411–428.
- Ho, D. Y. F., & Chiu, C.-y. (1994). Component ideas of individualism, collectivism, and social organization: An application in the study of Chinese culture. In U. Kim, Ç. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method and applications* (pp. 137–156). Thousand Oaks, CA: Sage.
- Hofstede, G. H. (1980). *Culture's consequences: International differences in work-related values*. Beverley Hills, CA: Sage.
- Hofstede, G. H. (1991). Empirical models of cultural differences. In N. Bleichrodt & P. J. D. Drenth (Eds.), *Contemporary issues in cross-cultural psychology* (pp. 4–20). Amsterdam: Swets & Zeitlinger.
- Hofstede, G. H. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Thousand Oaks, CA: Sage.

- Hong, Y.-y., Ip, G., Chiu, C.-y., Morris, M. W., & Menon, T. (2001). Cultural identity and dynamic construction of the self: Collective duties and individual rights in Chinese and American cultures. *Social Cognition*, 19, 251–269.
- Hong, Y.-y., Lee, K., & Zhang, Z. (2006). *Cultural influences on the link between individual and collective self*. University of Illinois at Urbana-Champaign: Unpublished data.
- Hong, Y.-y., & Mallorie, L. M. (2004). A dynamic constructivist approach to culture: Lessons learned from personality psychology. *Journal of Research in Personality*, 38, 59–67.
- Hong, Y.-y., Morris, M. W., Chiu, C.-y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Ji, L.-j., Schwarz, N., & Nisbett, R. E. (2000). Culture, autobiographical memory and behavioral frequency judgments: Measurement issues in cross-cultural studies. *Personality and Social Psychology Bulletin*, 26, 586–594.
- Ji, L.-j., Zhang, Z., & Nisbett, R. E. (2004). Is it culture or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of Personality and Social Psychology*, 87, 57–65.
- Kam, C. C. S., & Bond, M. H. (in press). The role of emotions and behavioral responses in mediating the impact of face loss on relationship deterioration: Are Chinese more face-sensitive than Americans? *Asian Journal of Social Psychology*.
- Kashima, Y., Kokubo, T., Kashima, E. S., Bozall, D., Yamaguchi, S., & Macrae, K. (2004). Culture and self: Are there within-culture differences in self between metropolitan areas and regional cities? *Personality and Social Psychology Bulletin*, 30, 816–823.
- Kashima, Y., Woolcock, J., & Kashima, E. (2000). Group impressions as dynamic configurations: The tensor product model of group impression formation and change. *Psychological Review*, 107, 914–942.
- Keller, H. (2007). *Cultures of infancy*. Mahwah, NJ: Erlbaum.
- Kitayama, S., & Cohen, D. (Eds.). (2007). *Handbook of cultural psychology*. New York: Guilford.
- Krauss, R. M., Geller, V., & Olson, C. (1976). *Modalities and cues in the detection of deception*. Paper presented at the American Psychological Association Convention.
- Kühnen, U., Hannover, B., & Schubert, B. (2001). The semantic-procedural interface model of the self: The role of self-knowledge for context-dependent versus context-independent modes of thinking. *Journal of Personality and Social Psychology*, 80, 397–409.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.
- Kwan, V. S. Y., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology*, 73, 1038–1051.
- Lazarus, R. S. (1982). Thoughts on the relations between emotion and cognition. *American Psychologist*, 37, 1019–1024.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78(6), 1122–1134.
- Leung, K. (1997). Negotiation and reward allocations across cultures. In P. E. Christopher & M. Erez (Eds.), *New perspectives on international industrial organizational psychology* (pp. 640–675). San Francisco: New Lexington.
- Maddux, W. M., & Yuki, M. (2006). The “ripple effect”: Cultural differences in perceptions of the consequences of events. *Personality and Social Psychology Bulletin*, 32, 669–683.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Marsh, A. A., Elfenbein, H. A., & Ambady, N. (2007). Separated by a common language: Nonverbal accents and cultural stereotypes about Americans and Australians. *Journal of Cross-Cultural Psychology*, 38, 284–300.
- Matsumoto, D., & Willingham, B. (2006). The thrill of victory and the agony of defeat: Spontaneous expressions of medal winners at the 2004 Athens Olympic Games. *Journal of Personality and Social Psychology*, 91(3), 568–581.
- McGuire, W. J. (1972). Attitude change: An information processing paradigm. In C. G. McClintock (Ed.), *Experimental social psychology* (pp. 108–141). New York: Holt, Rinehart, and Winston.
- Miller, P. J. (1995). Personal storytelling in everyday life: Social and cultural perspectives. In R. S. Wyer (Ed.), *Advances in social cognition: Knowledge and memory* (Vol. 8, pp. 177–184). Mahwah, NJ: Lawrence Erlbaum Associates.

- Miller, P. J., Fung, H., & Mintz, J. (1996). Self-construction through narrative practices: A Chinese and American comparison of early socialization. *Ethos*, 24, 237–280.
- Miller, P. J., Sandel, T. L., Liang, C.-h., & Fung, H. (2001). Narrating transgressions in Longwood: The discourses, meanings, and paradoxes of an American socializing practice. *Ethos*, 29, 159–186.
- Miller, P. J., Wiley, A. R., Fung, H., & Liang, C. H. (1997). Personal storytelling as a medium of socialization in Chinese and American families. *Child Development*, 68, 557–568.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 110, 246–268.
- Mosquera, P. M. R., Manstead, A. S. R., & Fischer, A. H. (2000). The role of honor-related values in the elicitation, communication and experience of pride, shame and anger: Spain and the Netherlands compared. *Personality and Social Psychology Bulletin*, 26, 833–844.
- Nelson, M. R., Brunel, F. F., Supphellen, M., & Manchanda, R. V. (2006). The effects of culture, gender, and moral obligations on responses to charity advertising across masculine and feminine cultures. *Journal of Consumer Psychology*, 16, 45–56.
- Ng, S. H., & Lai, J. (in press). Effects of cultural priming on the social connectedness of the bicultural self: A self-reference effect approach. *Journal of Cross-Cultural Psychology*.
- Ng, S. H., Yam, N., & Lai, J. (2007). The bicultural self of Chinese in Hong Kong. In J. Liu, C. Ward, A. Bernardo, M. Karasawa, & R. Fischer (Eds.), *Casting the individual in societal and cultural contexts: Social and societal psychology for Asia and the Pacific* (Progress in Asian Social Psychology Series, Vol. 6) (pp. 105–122). Seoul, Korea: Kyoyook-Kwahak-Sa.
- Ng, S. H., Han, S., Mao, L., & Lai, J. C. L. (2008). *Flexible neural representation of self in bicultural brains*. Unpublished manuscript, City University of Hong Kong.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291–310.
- Oishi, S., Lun, J., & Sherman, G. D. (2007). Residential mobility, self-concept, and positive affect in social interactions. *Journal of Personality and Social Psychology*, 93, 131–141.
- Oishi, S., Wyer, R. S., & Colcombe, S. (2000). Cultural variation in the use of current life satisfaction to predict the future. *Journal of Personality and Social Psychology*, 78, 434–445.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. New York: Cambridge University Press.
- Patterson, M. L. (1966). An arousal model of interpersonal intimacy. *Psychological Review*, 83, 235–245.
- Ratcliff, R. (1978). A theory of memory retrieval. *Psychological Review*, 85, 59–108.
- Rhee, E., Uleman, J., & Lee, H. K. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analysis. *Journal of Personality and Social Psychology*, 71, 1037–1054.
- Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology*, 35, 677–688.
- Roseman, I. (1979). *Cognitive aspects of emotion and emotional behavior*. Paper presented at the annual meeting of the American Psychological Association, New York.
- Rosenthal, R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences*, 3, 377–386.
- Schwarz, N. (1996). *Cognition and communication: Judgmental biases, research methods and the logic of conversation*. Hillsdale, NJ: Erlbaum.
- Schwarz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist*, 54, 93–105.
- Schwarz, N. (2003). Self-reports in consumer research: The challenge of comparing cohorts and cultures. *Journal of Consumer Research*, 29, 588–594.
- Schwarz, N., Strack, F., Müller, G., & Chassein, B. (1988). The range of response alternatives may determine the meaning of the question: Further evidence on informative functions of response alternatives. *Social Cognition*, 6, 107–117.
- Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology*, 65, 317–338.
- Shen, H., Wan, F., & Wyer, R. S. (2008). *A cross-cultural study of gift acceptance in a consumption context: The mediating role of feelings of appreciation and indebtedness*. Unpublished manuscript, Hong Kong University of Science and Technology.
- Smith, E. R. (1990). Content and process specificity in the effects of prior experiences. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition* (Vol. 3, pp. 1–59). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Smith, E. R., & DeCoster, J. (1998). Knowledge acquisition, accessibility, and use in person perception and stereotyping: Simulation with a recurrent connectionist network. *Journal of Personality and Social Psychology*, 74, 21–35.
- Smith, E. R., & DeCoster, J. (1999). Associative and rule-based processing: A connectionist interpretation of dual-processing models. In S. Chaiken & Y. Trope (Ed.), *Dual-process theories in social psychology* (pp. 323–336). New York: Guilford Press.
- Smith, P. B., Bond, M. H., & Kağıtçıbaşı, Ç. (2006). *Understanding social psychology across cultures*. London: Sage.
- Snyder, M., & Swann, W. B. (1978). Hypothesis-testing processes in social interaction. *Journal of Experimental Social Psychology*, 36, 1202–1212.
- Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35, 656–666.
- Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, 37, 1660–1672.
- Srull, T. K., & Wyer, R. S. (1980). Category accessibility and social perception: Some implications for the study of person memory and interpersonal judgments. *Journal of Personality and Social Psychology*, 38, 841–856.
- Sussman, N., & Rosenfeld, H. (1982). Influence of culture, language and sex on conversational distance. *Journal of Personality and Social Psychology*, 42, 66–74.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In M. P. Zanna (Ed.). *Advances in experimental social psychology* (Vol. 21, pp. 181–226). New York: Academic Press.
- Tesser, A., & Campbell, J. (1983). Self-definition and self-evaluation maintenance. In J. Suls & A. Greenwald (Eds.). *Social psychological perspectives on the self* (pp. 1–31). Hillsdale, NJ: Erlbaum.
- Trafimow, D., Silverman, E. S., Fan, R. M. T., & Law, J. S. (1997). The effects of language and priming on the relative accessibility of the private self and the collective self. *Journal of Cross-Cultural Psychology*, 28, 107–123.
- Triandis, H. C. (1994). *Culture and social behavior*. New York: McGraw-Hill.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Wong, R. Y-M., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, 16, 429–434.
- Wyer, R. S. (1974). *Cognitive organization and change: An information-processing approach*. Hillsdale, NJ: Erlbaum.
- Wyer, R. S. (2004). *Social comprehension and judgment: The role of situation models, narratives and implicit theories*. Mahwah, NJ: Erlbaum.
- Wyer, R. S. (2007). Principles of mental representation. In A. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles*, 2nd ed. (pp. 285–231). New York: Guilford.
- Wyer, R. S. (2008). The role of knowledge accessibility in cognition and behavior: Implications for consumer information processing. In C. Haugvedt, P. Herr, & F. Kardes (Eds.), *Handbook of consumer psychology* (pp. 31–76). Mahwah, NJ: Erlbaum.
- Wyer, R. S., & Carlston, D. E. (1979). *Social cognition, inference and attribution*. Hillsdale, NJ: Erlbaum.
- Wyer, R. S., & Srull, T. K. (1989). *Memory and cognition in its social context*. Hillsdale, NJ: Erlbaum.
- Zuckerman, M. (1994). *Behavioral expressions and biosocial bases of sensation seeking*. New York: Cambridge University Press.

26 Society, Culture, and the Person

Ways to Personalize and Socialize Cultural Psychology

Chi-yue Chiu and Melody Manchi Chao

If you see in any given situation only what everybody else can see, you can be said to be so much a representative of your culture that you are a victim of it.

S. I. Hayakawa

Hayakawa's famous quote about culture highlights the importance of critical reflectivity in understanding culture's impacts on us. Cultural psychology has its own culture. When cultural psychologists see their practices in the same way all other cultural psychologists do, they have become victims of their own research culture. When the authors of this volume gathered in Hong Kong in December 2006, they critically reflected on the progress and challenges of the field. In this final chapter, we further reflect on the ideas that emerged in this reflective process. In our view, these ideas contest current wisdom in the field and challenge investigators to refashion cultural psychology into an even more vibrant science of society, culture, and the person. We will begin by reflecting on the field's achievements and proceed to discuss the challenges and responses.

ACHIEVEMENTS

A major achievement in cultural psychology is its successful demonstration of culture's influence on basic psychological processes. Many psychological processes that were previously taken to be fundamental human experiences (e.g., the fundamental attribution error, cognitive dissonance, self-enhancement) are now known to be culture-dependent (see Lehman, Chiu, & Schaller, 2004). Recent research findings have qualified many of the early strong claims pertaining to culture's consequences. For example, we now know that the fundamental attribution error is not entirely absent in Asian contexts; however, instead of attributing global dispositions to the individual actors as North Americans tend to do, Asians tend to attribute global dispositions to social groups (Menon, Morris, Chiu, & Hong, 1999; Spencer-Rodgers, Williams, Hamilton, & Peng, 2007). We also know that Asians also experience cognitive dissonance; however, instead of justifying choices that implicate one's sense of competence and autonomy as many North Americans do, Asians tend to justify choices that implicate one's relationships with others (Kitayama, Snibbe, Markus, & Suzuki, 2004). We know that like North Americans, Asians also self-enhance but do so only in culturally sanctioned domains (Kurman, 2003; Sedikides, Gaertner, & Toguchi, 2003). Nevertheless, impressive evidence has persuaded many psychological scientists to accept a major premise in cultural psychology: Culture matters! Cultural experiences can influence human psychology in many important ways.

All authors in this volume have made important contributions to this achievement, and the ideas they present in this volume further extend this achievement. Some (Bagozzi, Belschak, & Verbeke;

Briley; Lee & Semin; Leung & Brew; Matsumoto; Wang, Toosi, & Ambady) contribute by identifying other psychological consequences of culture. Although each of these authors seeks to explain a different psychological phenomenon (motivational predilection, emotion recognition, emotion expression, time orientation, self-regulation, conflict resolution), all of them address both the universal and culture-dependent aspects of their phenomena. For example, Matsumoto (this volume) documents the cultural invariability of people's first uncontrolled emotional responses to successes and failures, but at the same time acknowledges the regulatory functions of culture-specific emotion display rules. Because these display rules vary across cultures, cultural differences in controlled expressions of emotions are observed.

In a similar vein, Ambady and colleagues (this volume) liken the acquisition of emotion recognition expertise to language learning. In language learning, repeated exposure to a certain language or dialect increases one's fluency in it. Because people in different linguistic communities speak different languages or dialects, the same language-learning mechanism can account for predictable linguistic variations. Likewise, frequent exposure to a certain culture-dependent configuration of felt emotions and facial expressions can facilitate accuracy in emotion recognition. Because cultures differ in these configurations, people have developed greater expertise in decoding in-group (versus out-group) members' emotional expressions.

Radical cultural relativism, which had a strong hold on some early theories of culture and psychology, rejects the notion of psychic unity and affirms the incommensurability of cultures. The research examples described above indicate that the dualism of psychic unity versus cultural variations is oversold (see also Chiu & Hong, 2005).

Other authors (Bond & Leung; Schwartz; Triandis) contribute by constructing broad dimensional maps to categorize or characterize numerous world cultures. These cultural cartographers are skilled in filtering out noise in the data (for example, see Smith, this volume). The cultural maps they constructed afford orderly arrangement of cultures on theory-informed or empirically derived schemes, and provide powerful tools for anticipating and interpreting cultural differences and similarities. Cultural cartography reduces the complexity of world cultures to a manageable number of broad dimensions. Meanwhile, different cartographers have markedly different judgments on what constitute the most natural ways that cultural space should be dissected to illuminate the fundamental structure of cultural experiences.

These small-scale cultural maps, illuminating as they are, should not be taken to represent the way individuals *represent and experience* their cultural experiences (see Kashima, this volume; Wyer, this volume). To do so risks committing the ecological fallacy that occurs when investigators make an inference about an individual based on aggregate data for a group (see Robinson, 1950, for discussion on this widely recognized error in the interpretation of statistical data). For example, even if a certain culture has a high average level of endorsement of individualist values, it would be erroneous to conclude, based on this result, that *an average individual* in the culture values individualism. This result also does not warrant the inference that the modal values in a culture are the antecedents of an individual's behaviors simply because this individual is a member of the culture. When an investigator makes this kind of inference, the cultural attribution fallacy occurs (Matsumoto & Yoo, 2006; Wan & Chiu, this volume).

Thus, as Kashima (this volume) reminds us, while global cultural dimensions or dichotomies are useful interpretive tools for comprehending cultural similarities and differences, they do not explain why individuals in a certain culture behave in a specific way (see also Hong & Chiu, 2001). To explicate an individual's behaviors in his or her cultural milieu, it is necessarily to understand how individuals comprehend and remember their cultural experiences and let these experiences and their cognitive representations guide their judgments and behaviors in concrete situations (Chiu & Hong, 2006, 2007; Wyer, this volume).

Armed with rich knowledge of cultural similarities and differences, some authors (Brislin; Friedman & Liu; Leung & Brew; Schwartz; Sedikides, Wilschut, Routledge, Arndt, & Zhou; Tov, Diener, Ng, Kesebir & Harter) have made a convincing case for the relevance of cultural psychology

to important real-life outcomes at the levels of the individual (e.g., conflict management, management of culturally diverse teams, acculturation stress) and the nation (e.g., peace and happiness, capital flow). These authors' research also uncovers some new questions in cultural psychology: Do happiness and peace have the same meanings in different political regimes and at different stages of economic development? Can the same metric be used to measure happiness and peace in different countries? What would an individual need to maintain personal adjustment and achieve competent performance in a multicultural environment (Chiu & Hong, 2005)? Will possessing a rich repertoire of cultural knowledge suffice (see Brislin, this volume)? How important is the development of a multicultural mindset for navigating cultures (see Friedman & Liu, this volume; Klafchuk, Banerjee, & Chiu, 2008; Leung, Maddux, Galinsky, & Chiu, 2008)? When will attachment to one's heritage become an impediment to successful acculturation (Chao, Chen, Roisman, & Hong, 2007)? When will one's heritage culture nostalgia become a resource for coping with the demands of an unfamiliar culture (see Sedikides et al., this volume)?

CHALLENGES AND RESPONSES

Carlson (1984) posed two critical questions to social-personality psychologists: Where is the person in personality research? What is social about social psychology? In our reflections on the culture of cultural psychology, we challenge ourselves to answer two similar questions: Where is the person in cultural psychology? What is social about cultural psychology?

WHERE IS THE PERSON IN CULTURAL PSYCHOLOGY?

When Richard Shweder (1990, p. 1) defined cultural psychology, he emphasized the mutual constitution of culture and psyche: "Cultural psychology is the study of the ways subject and object, self and other, psyche and culture, person and context, figure and ground, practitioner and practice live together, require each other, and dynamically, dialectically, and jointly make each other up."

Although almost all cultural psychologists accept the basic premise that culture and psyche make each other up, research in cultural psychology is marked by a lopsided emphasis on culture's influence on the individual. One reason for the imbalance arises from the assumption within cultural psychology that all behaviors occur within a certain cultural context; therefore, it is inconceivable how individuals can act as exogenous agents on culture.

There are two ways to "personalize" cultural psychology. First, even if we accept the idea that all behaviors occur within a certain cultural context, it is still meaningful to account for culturally conditioned behaviors in terms of the psychological processes of separate individuals belonging to the culture (Chiu & Hong, 2006, 2007). Several authors (Hong; Markman, Grimm, & Kim; Oyserman & Sorensen) have explored this possibility. Wyer (this volume) has provided an integration of these ideas.

Second, we can take a functional perspective to culture and define culture as a collection of shared knowledge tools a human group constructs to coordinate group members' activities and to manage the opportunities and constraints in the environment for the purpose of achieving personal and collective goals (Chiu, Kim, & Wan, 2008). Taking this perspective, although all members of a culture have at least partial knowledge of the prevailing cultural proscriptions and prescriptions, they may choose to follow or disobey them (Chiu & Chen, 2004). Cultural conformity is expected from individuals who have internalized the cultural norms or expectations (Wan et al., 2007; Wan & Chiu, this volume). Cultural conformity is also expected when conformity yields psychological benefits (Chiu, Morris, Hong, & Menon, 2000; Fu et al., 2007), or when nonconformity brings punishment (Chao, Zhang, & Chiu, in press). As Gordon Allport (1955, p. 82) put it more than half a century ago:

That the cultural approach yields valuable facts we cannot possibly deny, for culture is indeed a major condition in becoming. Yet personal integration is always the more basic fact. While we accept certain cultural values as appropriate, as important for our own course of becoming, it is equally true that we are all rebels, deviants, and individualists. Some elements in our culture we reject altogether; many we adopt as mere opportunistic habits; and even those elements that we genuinely *appropriate* we refashion to fit our own style of life. Culture is a condition of becoming but is not itself the full stencil.

WHAT IS SOCIAL ABOUT CULTURAL PSYCHOLOGY?

Do we need to retain *culture* as an organizing construct in cultural psychology? What would cultural psychology be like without culture? Hong (this volume) contends that cultural differences in judgment and behaviors can be understood in terms of the mental constructs that are applied to comprehend the current situation. Culturally received constructs have a high likelihood of being applied simply because of their high frequency of use. Oyserman and Sorensen (this volume) argue that an individual's behaviors in a certain cultural context can be predicted from the specific self-construal that is activated in the situation and the activated self-construal's allied constructs and information-processing strategies (which together form a cultural syndrome). Markman et al. (this volume) posit that cultural differences can be reduced to group differences in the strength of such personal motives as fear of isolation. These arguments do not diminish the value of comparative research in cultural psychology—such comparisons often lead to identification of important individual difference variables or mental constructs that have previously fallen into investigators' cultural blind spot. However, these views raise a critical question: What is social about cultural psychology?

Tsui (this volume) writes against psychological reductionism, arguing that a culture should be defined by the central themes that organize its ideas and practices into a coherent whole. For example, what characterizes a collectivist culture is a configuration of psychological traits: endorsement of interdependence, preference for holistic and dialectical information processing, field dependence, conformity, conflict avoidance, prevention focus, and so forth. Likewise, what characterizes an individualist culture is a configuration of different traits: endorsement of independence, preference for analytical thinking, field independence, promotion focus, and so forth (see Lee & Semin, this volume). In short, the whole cannot be reduced to the sum of the parts.

Unfortunately, the evidence for the cultural coherence argument or systemic view of culture is wanting (Choi, Koo, & Choi, 2007; Kashima, this volume; Oyserman, Coon, & Kemmelmeier, 2002). In their meta-analysis of between-country and within-country differences in individualism/collectivism, Oyserman et al. (2002) found that a country can be more individualistic than another country in one domain of individualism/collectivism and more collectivistic in the other. This and other collaborative evidence (Ho & Chiu, 1994; Matsumoto, 1999; Poortinga, 2003; Takano & Osaka, 1999) cast doubt on the defensibility of the systemic view of culture in both anthropology (Shore, 2002) and psychology (Dutton & Heath, in press; Kashima, this volume; Poortinga, 2003).

Wan and Chiu (this volume) offer another way to "socialize" cultural psychology. According to them, it is insufficient to define culture merely in terms of its members' modal responses to individual difference measures of values and beliefs. Instead, they argue to include in the definition of culture the cultural group's collective consensus on what defines the culture. More interestingly, what people in a culture generally believe to be important in the culture may not correspond perfectly to what most people in the culture actually value. In fact, an individual may erroneously believe that an idea he or she has heard many times before *from the same source* is a widely held idea in their community (Weaver, Garcia, Schwarz, & Miller, 2007). Furthermore, the beliefs and values that people generally believe to be shared in a culture are important guides to its members' judgments and behaviors.

Another way to "socialize" culture is to connect culturally received behaviors to the actors' physical and social ecology. To George Herbert Mead (1934, p. 7), the goal of social psychology is to "explain the conduct of the individual in terms of the organized conduct of the social group." Along

this line, some authors of this volume have linked the cultural patterning of individual behaviors to regional differences in climate (Tavassoli, this volume), to group differences in language use as a social institution (Semin, this volume), and to the different levels of residential mobility in different human populations (Oishi & Kisling, this volume). For example, when residential and occupational mobility is low, people live in a stable environment and develop behavioral strategies to adjust to it. When mobility is high, people tend to choose environments that fit their individual preferences (Oishi & Kisling, this volume; Chen, Chiu, & Chan, 2008).

Broadly speaking, individual behaviors can be conceptualized as strategies adapted toward the various opportunities and constraints that are present in a human group's physical and social ecology. For example, the regional prevalence of pathogens correlated positively with country-level collectivism and negatively with individualism (Schaller & Murray, 2008). One interpretation of this finding is that some aspects of collectivism (e.g., conformity to disease control norms) can serve to control the spread of pathogens in the group.

Conformity has also been found to be a strategy for avoiding accrual of negative reputation. In societies where groups and relationships are typically closed to outsiders (e.g., Japan), reputation control is a major social mechanism for regulating individual conduct—those who are excluded from their group or relationship because of their bad reputation may find no alternatives to accept them. Consequently, individuals in these societies are motivated to conform to group norms (Yamagishi, Hashimoto, & Schug, 2008).

Furthermore, such societies may also develop mechanisms for mutual monitoring of individual behaviors. One such mechanism is delegated deterrence, or the tendency to punish group members “not because they are deemed collectively responsible for wrongdoing but simply because they are in an advantageous position to identify, monitor, and control responsible individuals—and can be motivated by the threat of sanctions to do so” (Levinson, 2003, p. 4). Some recent evidence has linked the greater prevalence of collective responsibility in China (versus the U.S.) to the more salient goal of delegated deterrence in China (Chao et al., in press).

ARE SOCIETY, CULTURE, AND THE PERSON A LOVE-HATE TRIANGLE?

A major assumption in cultural psychology is that through socialization, individuals internalize the norms and values of the society and act in accordance with cultural expectations. Social scientists have contested this assumption. In his provocative book entitled *The Oversocialized Conception of Man*, Denis Wrong (1976) rejected this view and argued that social actors are not simply acceptance-seekers. Instead, individuals have personal and class agendas, and culture is an evolved mechanism to regulate personal and class interests, as early writers such as Sigmund Freud and Karl Marx posited. Our analysis in the previous section also suggests that individuals do not always conform to cultural expectations, and cultural practices are often developed to subdue the ambitions of the individual or a subgroup of individuals in the society. Thus, many writers are critical of the oversocialized conception of human sociality in cultural theories. For example, in a disparaging tone, anthropologist Appadurai (1996, p. 12) wrote, “The noun *culture* appears to privilege the sort of sharing, agreeing, and bounding that fly in the face of the facts of unequal knowledge and the differential prestige of lifestyles, and to discourage attention to the worldviews and agency of those who are marginalized or dominated.”

Chiu, Kim and Chaturvedi (in press) have characterized the relationship of the person, the society, and culture as a love-hate triangle—they need each other and seek to control each other. Multilevel selection theories offer a useful perspective on this relationship. These theories were developed to address an unresolved issue in cultural evolution. Many cultural evolution theories conceive of culture as an evolved fitness-enhancing mechanism—it allows individuals to adapt to different social and ecological environments and to maximize *individual fitness* (Barkow, Cosmides, & Tooby, 1992). Kenrick and colleagues (Cohen, Kenrick, & Li, 2006; Kenrick, 2006) have used this idea to explain the evolution of different cultural beliefs about God. For example, human groups living in

different physical and social ecology will develop different religious beliefs. In societies where individuals are surrounded by loosely connected others, the belief in an omniscient God, who is harsh and punitive toward transgressions, would prevail to protect the individuals from the transgressors, maximizing the survival fitness of the individuals. This evolutionary perspective suggests that complex social systems emerge from initial random transactions among individuals in a given ecology. An underlying assumption in this evolutionary approach is that the cultural ideas were evolved to maximize individual fitness.

If culture is an evolved mechanism to maximize individual fitness, why are altruism and cooperation valued in most cultures? In a social dilemma, individual interests are pitted against the interests of the group. Selfish choices of individuals would almost always guarantee better immediate outcomes for the individuals at the expense of the group's long-term interest (Schroeder, 1995). Although the collective benefits more from cooperation among its members, selfish non-cooperators within the group (the free-riders) would have evolutionary advantage over the altruistic cooperators because they can acquire more resources and reciprocate nothing in return. Consequently, selfish optimizers would eventually dominate all societies. Nevertheless, contrary to this prediction, cooperation prevails in most societies. How do evolutionary theories account for the emergence of altruistic norms and practices?

The multilevel selection theory (Sober & Wilson, 1998; Wilson, 1994) holds that a higher-level organism, such as a social group, can evolve as a unit through the evolutionary process of higher-level selection. The theory of metasystem transition (Turchin, 1977) also conceptualizes the society as a metasystem with higher order control. Inspired by these ideas, Campbell and colleagues (Campbell, 1990, 1994; Heylighen & Campbell, 1995) proposed the theory of collective evolution. They maintained that evolution takes place at different levels simultaneously. Each level can be conceptualized as a "node of selection" (Campbell, 1990). A node of selection can be an individual, but it can also be a group. Evolution favors those nodes that possess fitness-enhancing characteristics. Therefore, if a group possesses the characteristics that would increase its fitness relative to other groups, the group would have a competitive advantage over the others, although this advantage might not be immediately apparent at the individual level (Sober & Wilson, 1998).

In line with this idea, in a social dilemma study (Sheldon & McGregor, 2000), participants were first identified as intrinsically or extrinsically oriented in a pretest (see Kasser & Ryan, 1993, 1996). Participants who valued intimacy and community and were willing to make self-sacrifice for the common good were classified as intrinsically oriented; those who valued money and popularity and were inclined to pursue self-interest were classified as extrinsically oriented. The participants played the game with four participants either with matched orientation or with mixed orientations. Each participant in the group acted for a timber company. They made bids anonymously to decide how much timber to harvest from a self-replenishing forest, and continued to bid until the forest became completely depleted. The results showed that within the mixed groups, the extrinsically oriented participants tended to make selfish choices and harvested more than the self-restrained intrinsic participants. Interestingly, groups with extrinsic participants harvested less than groups with intrinsic participants only because the extrinsic groups depleted the forest quickly. This result shows that at the group level of selection, intrinsic groups had a selective advantage over the extrinsic groups. However, at the individual level of selection, intrinsic participants were disadvantaged within a mixed group.

Thus, all human societies face this problem: If maximization of collective fitness requires cooperation, how can a society discourage individuals from making selfish choices that maximize individual fitness at expense of the group? Control mechanisms that prevent selfish maximization can operate at multiple levels. At the individual and interpersonal levels, individuals can develop strategies to detect free-riders and form coalition with altruistic individuals. For example, individuals may obtain information about other people's reputation and consider this information when they seek out coalition partners. This strategy is illustrated in a study (Sheldon, Sheldon, & Osbaldeston,

2000) in which participants were allowed to recruit their friends to take part in a “group bidding game.” The game was a four-person prisoner’s dilemma game. In this game, individual players could yield to temptation and defect or could cooperate to achieve the highest joint outcome for the group. Each player’s prosocial value orientation was assessed. As expected, like-minded prosocial individuals tended to be friends and played in the same group. In addition, the prosocial groups had better average performance than did than the less prosocial groups. In short, reputation control and other complementary interpersonal control strategies such as mutual monitoring, gossip (Kniffin & Wilson, 2005), and social exclusion (Spoor & Williams, 2007) are effective collective fitness-enhancement mechanisms, particularly in closed societies (Yamagishi et al., 2008).

However, free-riders are much harder to detect in large, open societies. Such societies often have to rely on other mechanisms of shared control (e.g., collective responsibility; Chao et al., in press) and “culture” (Fiske, 2000) to regulate individual interests.

As mentioned, an important part of culture is the values members of the society agree to be important to the society (Wan & Chiu, this volume). Communication is a primary process through which members of the society reach consensus on what is important to the society (Kashima, this volume). Some individuals may internalize some of these values. When they do, they would act in accordance with the pertinent cultural expectations, even with the absence of other evolved social control mechanisms. For these individuals, the interests of the individual, society, and culture are fully integrated. Not surprisingly, Charles Darwin (1859) believed that the highest possible stage in moral culture is when people recognize that they need to control their thoughts.

However, people are not fully socialized. At times, some people may feel the conflict between their personal desire for selfish optimization and the society’s press for collective optimization. When the cooperation norms are not salient, selfish interests may find a leak in the social control mechanisms and express themselves in various malevolent forms (e.g., corruption, nepotism; Heylighen & Campbell, 1995).

CONCLUSION

So, what is social about cultural psychology? Where is the person in cultural psychology? A major premise in cultural psychology is that culture and psyche make each other up. We submit that these mutual constitution processes do not occur in a social vacuum. Cultural psychology emphasizes culture’s authority over human psychology and has focused its research attention on finding culture’s imprints on human behaviors. However, at times, culture may seem powerless when confronted with individuals’ self-interests, just like the powerless Superego facing the Id. The authors in this volume have contributed good ideas to make cultural psychology a more vibrant science of the society and the individual. These contributions illustrate that cultural psychology can do a lot more than describe cultural differences. We submit that cultural psychologists can see farther and can contribute more to psychology and other social sciences. As new problems are identified and new solutions found, cultural psychology will broaden and deepen our understanding of the intricate interrelations of society, culture, and the person.

REFERENCES

- Allport, G. (1955). *Becoming: Basic considerations for a psychology of personality*. New Haven, CT: Yale University Press.
- Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization*. Minneapolis: University of Minnesota Press.
- Barkow, J. H., Cosmides, L., & Tooby, J. (1992). *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Carlson, R. (1984). What’s social about social psychology? Where’s the person in personality research? *Journal of Personality and Social Psychology*, 47, 1304–1309.

- Campbell, D. T. (1990). Levels of organization, downward causation, and the selection-theory approach to evolutionary epistemology. In E. Tobach and G. Greenberg (Eds.), *Scientific methodology in the study of mind: Evolutionary epistemology* (pp. 1–17). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Campbell, D. T. (1994). How individual and face-to-face group selection undermine firm selection in organizational evolution. In J. A. C. Baum and J. V. Singh (Eds.), *Evolutionary dynamics of organizations* (pp. 23–38). New York: Oxford University Press.
- Chao, M. M., Chen, J., Roisman, G. I., & Hong, Y. (2007). Essentializing race: Implications for bicultural individuals' cognition and affect. *Psychological Science*, 18, 341–348.
- Chao, M. M., Zhang, Z., & Chiu, C. (in press). Personal and collective culpability judgment: A functional analysis of East Asian–North American differences. *Journal of Cross-Cultural Psychology*.
- Chen, J., Chiu, C.-y., & Chan, S.-F. (2008). *The cultural effects of job mobility and the belief in a fixed world: Evidence from performance forecast*. Manuscript under revision.
- Chiu, C.-y., & Chen, J. (2004). Symbols and interactions: Application of the CCC model to culture, language, and social identity. In S.-h. Ng, C. Candlin, & C.-y. Chiu (Eds.), *Language matters: Communication, culture, and social identity* (pp. 155–182). Hong Kong: City University of Hong Kong Press.
- Chiu, C.-y., & Hong, Y. (2005). Cultural competence: Dynamic processes. In A. Elliot & C. S. Dweck (Eds.), *Handbook of motivation and competence* (pp. 489–505). New York: Guilford.
- Chiu, C.-y., & Hong, Y. (2006). *The social psychology of culture*. New York: Psychology Press.
- Chiu, C.-y., & Hong, Y.-y. (2007). Cultural processes: Basic principles. In E. T. Higgins & A. E. Kruglanski (Eds.), *Social psychology: Handbook of basic principles*. New York: Guilford.
- Chiu, C.-y., Kim, Y.-H., & Chaturvedi, A. (in press). Collective evolution: Revisiting Donald Campbell's legacy. In M. Schaller, S. J. Heine, A. Norenzayan, A., T. Yamagishi, & T. Kameda (Eds.), *Evolution, culture, and the human mind*. Mahwah, NJ: Lawrence Erlbaum.
- Chiu, C.-y., Kim, Y.-H., & Wan, W. N. (2008). Personality: Cross-cultural perspectives. In G. J. Boyle, G. Matthews, & D. H. Saloofskie (Eds.), *Handbook of personality theory and testing. Vol. 1: Personality theory and testing* (pp. 124–144). London: Sage.
- Chiu, C.-y., Morris, M., Hong, Y., & Menon, T. (2000). Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need for closure. *Journal of Personality and Social Psychology*, 78, 247–259.
- Choi, I., Koo, M., & Choi, J. A. (2007). Individual differences in analytic versus holistic thinking. *Personality and Social Psychology Bulletin*, 33, 691–705.
- Cohen, A. B., Kenrick, D. T., & Li, Y. J. (2006). Ecological variability and religious beliefs. *Behavioral and Brain Sciences*, 29, 468.
- Darwin, C. (1859). *On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life*. London: John Murray.
- Dutton, Y. C., & Heath, C. (in press). Cultural evolution: Why are some cultural variants more successful than others? In M. Schaller, S. J. Heine, A. Norenzayan, T. Yamagishi, & T. Kameda (Eds.), *Evolution, culture, and the human mind*. Mahwah, NJ: Lawrence Erlbaum.
- Fiske, A. P. (2000). Complementarity theory: Why human social capacities evolved to require cultural complements. *Personality and Social Psychology Review*, 4, 76–94.
- Fu, H.-y., Morris, M. W., Lee, S.-l., Chao, M.-c., Chiu, C.-y., & Hong, Y.-y. (2007). Epistemic motives and cultural conformity: Need for closure, culture, and context as determinants of conflict judgments. *Journal of Personality and Social Psychology*, 92, 191–207.
- Hayakawa, S. I. (1956). The fully functioning personality. *ETC Review of General Semantics*, 13, 169–181.
- Heylighen, F., & Campbell, D. T. (1995). Selection of organization at the societal level: Obstacles and facilitators of metasystem transitions. *World Futures: The Journal of General Evolution*, 45, 181–212.
- Ho, D. Y. F., & Chiu, C.-y. (1994). Component ideas of individualism, collectivism, and social organization: An application in the study of Chinese culture. In U. Kim, H. C. Triandis, Ç. Kağıtçıbaşı, G. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method and applications* (pp. 137–156). Thousand Oaks, CA: Sage.
- Hong, Y., & Chiu, C.-y. (2001). Toward a paradigm shift: From cultural differences in social cognition to social cognitive mediation of cultural differences. *Social Cognition*, 19, 118–196.
- Hoshino-Browne, E., Zanna, A. S., Spencer, S. J., Zanna, M. P., Kitayama, S., & Lackenbauer, S. (2005). On the cultural guises of cognitive dissonance: The case of Easterners and Westerners. *Journal of Personality and Social Psychology*, 89, 294–310.
- Kasser, T., & Ryan, R.M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, 410–22.

- Kasser, T., & Ryan, R.M. (1996). Further examining the American dream: Well-being correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*, 281–288.
- Kenrick, D. T. (2006) Evolutionary psychology: Resistance is futile. *Psychological Inquiry, 17*, 102–108.
- Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2004). Is there any “free” choice? Self and dissonance in two cultures. *Psychological Science, 15*, 527–533.
- Klafchek, J., Banerjee, P. M., & Chiu, C.-y. (2008). Navigating cultures: The role of metacognitive cultural intelligence. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence* (pp. 318–331). Armonk, New York: M. E. Sharpe.
- Kniffin, K. M., & Wilson, D. S. (2005). Utilities of gossip across organizational levels: Multilevel selection, free-riders, and teams. *Human Nature, 16*, 278–292.
- Kurman, J. (2003). Why is self-enhancement low in certain collectivist cultures? An investigation of two competing explanations. *Journal of Cross-Cultural Psychology, 34*, 496–510.
- Lehman, D. R., Chiu, C., & Schaller, M. (2004). Psychology and culture. *Annual Review of Psychology, 55*, 689–714.
- Leung, A. K.-y., Maddux, W. W., Galinsky, A. D., & Chiu, C.-y. (2008). Multicultural experience enhances creativity: The when and how. *American Psychologist, 63*, 169–181.
- Levinson, D. J. (2003). *Collective sanctions*. New York: NYU Law School, Public Law Research Paper No. 57.
- Matsumoto, D. (1999). Culture and self: An empirical assessment of Markus and Kitayama’s theory of independent and interdependent self-construal. *Asian Journal of Social Psychology, 2*, 289–310.
- Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research. *Perspectives on Psychological Science, 1*, 234–250.
- Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.
- Menon, T., Morris, M., Chiu, C.-y., & Hong, Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology, 76*, 701–717.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*, 3–72.
- Poortinga, Y. H. (2003). Coherence of culture and generalizability of data: Two questionable assumptions in cross-cultural psychology. In V. Murphy-Berman and J. J. Berman (Eds.), *Cross-cultural differences in perspectives on the self. Nebraska Symposium on Motivation* (Vol. 49, pp. 257–305). Lincoln: University of Nebraska Press.
- Robinson, W. S. (1950). Ecological correlations and the behavior of individuals. *American Sociological Review, 15*, 351–357.
- Schaller, M., & Murray, D. R. (2008). Pathogens, personality, and culture: Disease prevalence predicts worldwide variability in sociosexuality, extraversion, and openness to experience. *Journal of Personality and Social Psychology, 95*, 212–221.
- Schroeder, D.A. (1995). *Social dilemmas: Perspectives on individuals and groups*. Westport, CT: Praeger.
- Sedikides, C., Gaertner, L., & Toguchi, Y. (2003). Pancultural self-enhancement. *Journal of Personality and Social Psychology, 84*, 60–79.
- Sheldon, K. M., & McGregor, H. (2000). Extrinsic Value Orientation and the “tragedy of the commons.” *Journal of Personality, 68*, 383–411.
- Sheldon, K. M., Sheldon, M. S., & Osbaldiston, R. (2000). Prosocial values and group-assortation within an N-person prisoner’s dilemma. *Human Nature, 11*, 387–404.
- Shore, B. (2002). Taking culture seriously. *Human Development, 45*, 226–228.
- Shweder, R. A. (1990). Cultural psychology: What is it? In J. W. Stigler, R. A. Shweder, & G. Herdt (Eds.), *Cultural theories: Essays on comparative human development* (pp. 1–46). Cambridge, UK: Cambridge University Press.
- Sober, E., & Wilson, D. S. (1998). *Unto others: The evolution and psychology of unselfish behavior*. Cambridge, MA: Harvard University Press.
- Spencer-Rodgers, J., Williams, M., Hamilton, D., & Peng, K. (2007). Culture and group perception: Dispositional and stereotypic inferences about novel and national groups. *Journal of Personality and Social Psychology, 93*, 525–543.
- Spoor, J., & Williams, K. D. (2007). The evolution of an ostracism detection system. In J. P. Forgas, M. G. Haselton, & W. von Hippel (Eds.), *Evolution and the social mind: Evolutionary psychology and social cognition* (pp. 279–292). New York: Psychology Press.
- Takano, Y., & Osaka, E. (1999). An unsupported common view: Comparing Japan and the U.S. on individualism/collectivism. *Asian Journal of Social Psychology, 2*, 311–341.

- Turchin, V. (1977). *The phenomenon of science. A cybernetic approach to human evolution.* New York: Columbia University Press.
- Wan, C., Chiu, C., Tam, K., Lee, S., Lau, I. Y., & Peng, S. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology*, 92, 337–354.
- Weaver, K., Garcia, S. M., Schwarz, N., & Miller, D. (2007). Inferring the popularity of an opinion from its familiarity: A repetitive voice can sound like a chorus. *Journal of Personality and Social Psychology*, 92, 821–833.
- Wilson, D. S. (2004). What is wrong with absolute individual fitness? *Trends in Ecology and Evolution*, 19, 245–248.
- Wong, R. Y., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, 16, 429–434.
- Wrong, D. (1976). *The oversocialized conception of man.* New York: Columbia University Press.
- Yamagishi, T., Hashimoto, H., & Schug, J. (2008). Preferences versus strategies as explanations for culture-specific behavior. *Psychological Science*, 19, 579–584.

Section VII

A Dialogue

The Present and Future State of Cultural Research and Theory

A Dialogue

Michael Harris Bond, Richard W. Brislin, Chi-yue Chiu, Dov Cohen, Michele Gelfand, Ying-yi Hong, Kwok Leung, Arthur B. Markman, Michael W. Morris, Sik Hung Ng, Ara Norenzayan, Shigehiro Oishi, Shalom H. Schwartz, and Harry C. Triandis

The chapters in this volume have addressed numerous issues of central concern in cultural and cross-cultural research and theory. However, several more general issues, raised both in these chapters and in the conference that inspired the publication of this volume, have implications for both the present status of cultural and cross-cultural theorizing and the future directions it is likely to take. Stimulated by the need to address these issues, the editors asked both the contributors to this volume and other conference participants to respond to a number of questions of general importance in assessing the role of culture in acquiring a general understanding of human behavior. This section of the volume summarizes responses to these questions, which include:

1. What is the relevance of psychological studies of culture to national development and national policies? (Harry C. Triandis, Shalom H. Schwartz, Richard W. Brislin, Sik Hung Ng)
2. What is the relationship between macro structures of a society and shared cognitions? (Michael Harris Bond, Shalom H. Schwartz, Michele Gelfand, Michael W. Morris)
3. How can structural and process models be integrated into a coherent theory of culture? (Shigehiro Oishi, Ara Norenzayan)
4. How do personal experience and cultural traditions interact to give rise to intracultural/regional variations within a national culture? (Richard W. Brislin, Michael Harris Bond, Kwok Leung, Harry C. Triandis, Michael W. Morris, Dov Cohen)
5. Can culture be validly measured by self-reports? (Michael Harris Bond, Harry C. Triandis, Chi-yue Chiu, Shalom H. Schwartz, Michele Gelfand, Richard W. Brislin)
6. What is the future of cultural psychology? What are the new challenges and frontiers? (Harry C. Triandis, Ara Norenzayan, Michele Gelfand, Richard W. Brislin)
7. Should cultural psychology strive to eliminate culture as an explanatory variable? (Arthur B. Markman, Kwok Leung, Ying-yi Hong)

1. WHAT IS THE RELEVANCE OF PSYCHOLOGICAL STUDIES OF CULTURE TO NATIONAL DEVELOPMENT AND NATIONAL POLICIES?

HARRY C. TRIANDIS

Elements of subjective culture such as values are undoubtedly related to economic development (Harrison & Huntington, 2000; Harrison & Kagan, 2006). It is still unclear, however, exactly *how* values are related to development. This commentary is a modest effort to suggest some lines for further research.

Values

Important values for development include productivity and the concept that “time is money.” Saving, self-control, and self-improvement are also important (Harrison & Huntington, 2000). The need for achievement is still another factor (McClelland, 1961).

Grondona (2000) argues that there are two kinds of cultures: those that favor development and those that resist it. These cultures differ in many ways. For example:

The former cultures have religions in which economic success is an indication of God’s blessing. The latter have religions that glorify poverty, and the rich feel uncomfortable.

The former trust individuals to get things done. The latter trust society (e.g., the government) to get things done.

In the former cultures, individuals are “reasonably egotistic.” In the latter, they are either altruistic or criminal.

In the former cultures, wealth is what does not yet exist (e.g., inventions). In the latter, wealth is what exists (e.g., land).

The former cultures consider competition desirable. The latter cultures consider it to be a form of aggression.

The former cultures save, but the latter consume.

The former value hard work. The latter value getting to the top of a hierarchy.

The former cultures value heresy. The latter value dogma.

The former cultures value creativity. The latter value doing well within the system.

The former cultures value what is feasibly useful. The latter value the grand vision.

The former cultures value a job well done, tidiness, and punctuality. The latter do not.

The former cultures value the future, the latter value the past.

The former cultures value rationality. The latter value grandiose projects (e.g., revolutions).

The former cultures organize their society according to laws. The latter organize it according to God.

The former cultures see the world as an arena for action. The latter see it as a battle with mystical forces (gods, devils).

In the former cultures, individuals have internal motivation. In the latter, they have external motivation, responding to outside forces.

In the former cultures, salvation is the result of individual action. In the latter it is the result of avoiding sin.

In the former cultures, people do what they do well. In the latter, people depend on luck or the gods.

The former cultures are democratic. The latter cultures are autocratic.

Inglehart and Baker (2000) examined data from several countries and found two dimensions that distinguish countries. One dimension contrasted traditional authority with secular-rational authority. The traditional side emphasized the importance of God. The secular side emphasized permissive attitudes toward sexual and other issues. This contrast, among cultures, is positively related to

individualism (more secular) and negatively related to power distance (hierarchical cultures give more importance to God). The other dimension contrasted survival (emphasis on money, hard work) with self-expression (leisure, friends, concern for the environment). The Northern European countries were high on both the secular and the self-expression dimensions. The African and Muslim countries were high on the traditional and the survival sides of the two dimensions. The other countries were in-between these two sets of countries. Inglehart (2000) presents evidence that development consists of a movement from traditional to secular-rational values and from survival to self-expression values. He also shows a correlation between pressures toward democracy and self-expression values.

The last 50 years have provided a number of examples of rapid economic development. The most spectacular of these is probably Singapore, which changed from a backwater British colony to a country with the sixth highest gross national product per capita in the world. No less impressive are the developments of China, India, South Korea and some other countries. In these countries, we find islands of development (e.g., Bangalore) where it is no longer possible to distinguish the island from the most developed parts of the world.

It is useful to consider these changes along some dimensions of cultural variation. The shift occurs from simple to complex, from tight to loose, from collectivist to individualist, and from vertical to horizontal. However, the shifts are not monolithic; they occur in some domains and not in others. Thus, for instance, the China of Chairman Mao was collectivist in social relationships, family life, the educational systems, the political system, the economic system, religion, aesthetics, and the widely accepted philosophy of life. That is, the state controlled and dictated what was "correct" in all those domains. Then, about 1970, the state allowed free expression and individualism among its artists and permitted more freedom in economic life. Economic life consequently became more complex, with new methods of borrowing and banking, stock market development, new marketing campaigns, new advertising methods, new methods of organizing work life, new methods of compensation of employees and managers, and so on. There was a corresponding increase in looseness. The state allowed people to do their own thing in some domains rather than following state-developed norms. There was more individualism, with entrepreneurs deciding what investments or new businesses to undertake without consulting their in-group. Of course the state is still in control of the political system, religion, and the educational system, and does impose its policies on family life (the one-child policy), but there is definitely more looseness and individualism in some domains than was the case in 1970.

The spectacular development of Singapore is in large measure the result of cultural diffusion. When Lee Kwan Yew, the first Prime Minister of Singapore and a major force in creating that state, studied law in Britain, he realized the importance of holding corruption to a minimum. When he established Singapore, he imposed very tight controls on corruption, so that Singapore is now one of the few collectivist cultures (Lipset & Lenz, 2000; Triandis et al., 2001) that have the level of corruption found in Scandinavia, the least corrupt region of the world. Corruption is related to economic development; the least corrupt societies have four times the gross national income per capita of the most corrupt societies (Lipset & Lenz, 2000, p. 115).

Singapore's location and trade in shipping (it deals with almost 200,000 ships per year, from all maritime nations) make it unusually open to the world. It is thus very likely to become looser and more individualist. Although it is still tight and collectivist in comparison to the rest of the world, one can see some individualist developments. For example, there was a need to pass a law that citizens must take care of their parents in order to ensure that "filial piety" operated. Apparently too many of its citizens traveled and had a good time and neglected their parents. (This tendency was very similar to that of some French, who in August 2003 went on vacation, leaving their parents to melt in the heat, so that some 15,000 old French died.)

Changes can occur along dimensions of cultural variation as long as the changes do not contradict an important element of the developing culture. The West is more complex, loose and individualist than the East, and so more changes occurred along these dimensions. In collectivist cultures, it

is more difficult to introduce a change that is inconsistent with a fundamental element of the culture. In India, for example, Nehru imposed an egalitarian constitution. However, the caste system is so central to the culture that the villagers still use it as the guide to their behavior. Thus, we see in the press that when boy and girl from different castes married, the villagers tried to kill them. In short, as these cultures become affluent, they also become individualist in some domains and no different from the cultures of the most developed parts of the world. However, they remain collectivist in other respects.

Urban environments are more individualist than rural environments. This can be observed in Singapore (an entirely urban environment), as well as in the large cities of China and India. The effect of schooling on cultural complexity is reflected in different parts of China and India. That is, some agricultural populations receive very little schooling and live in relatively simple cultures, whereas the cities have good educational systems and are very complex. In China, Marxism (a Western secular product) is somewhat present, but in rural environments the old superstitions prevail. As the society becomes more heterogeneous (city versus village) it becomes more loose and individualist. The one-child policy in China has produced much individualism among the only children, and the older generations have trouble adjusting to them. The “little emperors” are adored by four grandparents who do not entirely approve of them! This is creating within-family stresses as the two generations really belong to different cultures.

Policies

What policies are needed for development? They would include openness to other cultures, much education, and more equality, especially between men and women. The societies where women are second-class citizens lose half their brainpower.

Philosophers from ancient Greece to ancient China emphasized the principle of “nothing in excess.” That principle should probably be used also for complexity, tightness, and individualism. As the world becomes more complex, it is more difficult to understand what is going on, and many humans raised in simple cultures find themselves stressed by the complexity. This is especially clear in the case of migrants who are from simple cultures and moved to complex ones. They find their new environment difficult to understand, so they retreat to the simple culture of the mosque, where they are told that if they kill themselves for Allah, then they will feel no pain at the moment their blood is shed, they will go to “paradise” where they will have sex with 72 virgins, and all their sins will be wiped out; therefore, they can sin as much as they like before they become “martyrs.” Fairy tales are cognitively simple, and cognitively simple people love them.

It also seems desirable when changing cultures to avoid the extremes of looseness (experimenting with new substances, pornography, uninhibited sex) or tightness (lack of the freedom of self-expression). Insufficient collectivism leads to the neglect of family obligations, inadequate social cohesion, and loneliness. Excessive individualism places too much emphasis on economic development. After a country has reached the level of economic development of the poorer countries of the European Union, further increases in gross national product per capita are not associated with substantial increases in subjective well-being (Diener & Suh, 2000). Excessive emphasis on economic well-being is often associated with insufficient emphasis on human well-being.

Eckersley (2007) argues that individualism is bad for our health. He is an Australian epidemiologist who is concerned by the high rates of mental illness in individualist countries, and the fact that governments measure economic development but neglect to measure the health and well-being of the population. Extreme emphasis on accomplishments is often linked to stress. The levels of depression approximate 15 percent of the population in the West, but they are much lower in collectivist cultures. The West has become too materialist and greedy (e.g., Enron). Greed is associated with inequality, and history tells us that when inequality is too extreme, violence and revolution (Chinese, French, Russian) are not far behind.

More tightness and collectivism than are found in the West would seem to be desirable. It would be nice to see more politeness, more empathy, more interdependence. The in-group must not be

narrow (e.g., the family, tribe, party) but broad (e.g., people who value what I value). The narrower the in-group, the more likely it is that the society will be corrupt. When there is an opportunity to get a bribe, people justify it by saying to themselves, “I am doing it for my family, so my children will prosper.” At the same time, the West has established democracy and freedom of expression, and these factors are associated with individualism and high subjective well-being. Vertical societies tend to be authoritarian, and innovation rates are low. Moderately horizontal societies (e.g., Sweden) do rather well.

In sum, policies should favor “nothing in excess.” Very complex cultures should become a bit simpler, and simple cultures should become more complex. The tight cultures should become looser, and the loose cultures should become tighter. The collectivist cultures should become more individualistic, and the individualist cultures should become more collectivist. Many hypotheses about the factors that change cultures along these dimensions (Triandis, this volume) need to be tested in order to find out how to institute the policies that will result in “nothing in excess.”

SHALOM H. SCHWARTZ

The final third of my chapter in this volume presents theorizing about reciprocal, causal influences between culture and several social structural variables that relate to national development and policies. It presents path analyses based on data for over 70 countries that examine relations of my cultural value orientations with the socioeconomic level of countries, their level of political democracy, and their average family size.

The path analyses suggest that national wealth influences culture but also that the autonomy/embeddedness dimension of cultural values causally influences change in national levels of economic development. The higher the cultural autonomy in a country, the greater the increase in socioeconomic development.

The analyses further reveal that two cultural value dimensions, autonomy/embeddedness and egalitarianism/hierarchy, independently predict change in democracy. Higher cultural autonomy and egalitarianism lead to increased levels of democracy. Moreover, the influence of national wealth on levels of democracy appears to be mediated fully by the two cultural value dimensions.

A third set of analyses clarifies relations between culture and the average family/household size in countries. Family size is partly a product of national policies and, in turn, has implications for consumption and savings that can influence national development. These analyses show that family size influences all three dimensions of cultural values and that all of the cultural dimensions also influence change in the size of families. Cultural autonomy and harmony independently foster decreasing family size; surprisingly, cultural hierarchy also fosters decreasingly family size.

The chapter also discusses relations of cultural value orientations to the competitiveness of markets and to the flow of investment around the world. Empirical analyses suggest that culture has substantial effects in both of these domains. More detailed discussion and evidence on these topics are available in references cited in the chapter. These references also discuss relations of cultural value orientations to national welfare and labor policies, to the rule of law, to control of corruption, and more.

As the chapter elaborates, I conceive of culture as a latent variable, external to individuals. Its core is the implicit value emphases that underlie the ways in which social institutions address societal problems. That is why culture, as I measure it, is so relevant to national development and policies.

RICHARD W. BRISLIN

The relevance of psychological studies to national development can be posed as an empirical question. Researchers can predict gross national product of nations, for which statistics are available, through the combination of both objective and subjective (psychological) measures. Examples of objective measures are population size, energy resources, and ports for shipping. Examples of

subjective measures include individualism and collectivism, work ethic of adults, and optimism concerning the future. An important question will be, “Does the addition of psychological measures increase the amount of variance explained, in the prediction of a dependent variable such as gross national product, over and above objective measures?” I believe that the answer will often be “yes.”

SIK HUNG NG

Nations are mostly preoccupied with wealth, governance, internal peace, and territorial security. These national concerns privilege particular technologies of knowledge such as economics and law for their *immediate* and *direct* relevance to national development and policies. Psychology, by comparison, is more geared toward the study of individuals, and the resultant knowledge can *inform* national development and policies, but is rarely of any direct or immediate relevance. Even so, if our psychology fraternity performs the informing role well, that in itself will be a significant achievement.

The informing role of psychology applies to the psychological studies of culture. Substantive findings, representatives of which are outlined by Triandis (this volume) and Schwartz (this volume), pertain to variations in national development that can be systematically related to cultural dimensions based on East-West comparisons. The overall message is that cultural change can be both cause and effect of changes in GDP and democratic participation (see also Allen et al., 2007). Accordingly, one may infer that the Westernization of Eastern cultures would lead to Western-like GDP and democracy. But clearly such a simplistic inference would serve little purpose as a *policy* statement. It would quickly run into opposition due to Eastern cultural pride, and furthermore misses the crucial point that the combined best of the East and the West is better than the solo best of the West (or the East). The “best of both worlds” principle, I believe, is the single most worthwhile take-home message from decades of psychological studies of culture that would inform national development and policies. I think Triandis alludes to this “best of both worlds” message by citing the principle of “nothing in excess.”

Beyond the “best of both worlds” and “nothing in excess” principles, biculturalism offers another powerful psychological base for informing national development and policies. A large part of the world is made up of nations that are bicultural (or multicultural) in languages, religions, lifestyles, and values. Very few are culturally homogeneous or pure, and those that are, are an endangered species under the impact of globalization (Arnett, 2002). There are more and more bicultural individuals, many of whom are, and more will be, in positions of power and influence. How would the new breed of bicultural individuals within a nation make a difference to their country’s development? Psychological studies that shed light on this question will be in a good position to inform developmental and policy issues in the era of increasing globalization. My chapter in this volume illustrates a bicultural paradigm that complements the traditional monocultural paradigm for cross-cultural comparisons.

As a matter of fact, biculturalism resulting from contact with another culture has been as old as recorded human history. The older form of biculturalism, constrained by limited mobility across geographical distances, took the form of N+X, where N=native culture and X=neighboring culture. For example, Japan’s neighboring culture has been China, rather than far-flung America; and thus in the past, Japanese who were bicultural would have been bicultural in Chinese, not in American. With the spread of Western (mainly Euro-American) cultures over expansive geographical areas, and large numbers of non-Europeans migrating to America and Europe since the end of the last World War, modern biculturalism has assumed the new form of N+W, where Western cultures (W) have displaced X. For example, Asians with different Ns are now converging in their common share of Ws when they become bicultural. Their common second language is English, though spoken with different accents, and they probably know more about the West than they know about their immediate neighbors. Western-oriented globalization, now encompassing not only trade and finance but

also sports, education, and culture, will further ensure the dominance of Western cultures in the development of bicultural individuals, at least in the short term.

Looking ahead, as the geopolitical and -economic center stage returns to Asia after a lapse of three or four centuries, there will be more room for the emergence of a new form of biculturalism made up of Westerners who become bicultural in Asian cultures. Such a scenario, however far-fetched, should raise interesting opportunities for the psychological studies of culture.

2. WHAT IS THE RELATIONSHIP BETWEEN MACRO STRUCTURES OF A SOCIETY AND SHARED COGNITIONS?

MICHAEL HARRIS BOND

As social psychologists, we study social cognitions, be these cognitions about the self, another, a small group, an organization, a cultural group, or a nation. Our respondents dutifully provide us answers to such questions, whether or not these cognitions are a salient part of ongoing social life (see e.g., Harvey, Yarkin, Lightner, and Town's, 1980, work on the natural occurrence of attributions). An extensive cross-cultural literature is available on this topic of social cognition (see e.g., Smith, Bond, & Kağıtçıbaşı, 2006, chaps. 6, 11).

However, we rarely study the *sharedness* of these cognitions within a social system. Newcomb, Koenig, Flacks, and Warwick (1967) did so within a marriage, and it seems a natural focus of interest in any dyadic system; one would expect that for certain functional cognitions (e.g., did you intend to harm me?), consensus on this attribution would have important consequences for the future of the relationship (see e.g., Kam & Bond, 2008). The same is true of groups where, again, issues of group locomotion would seem to require consensus around key social cognitions, for example, whether the out-group intends to attack our group. The same logic could be applied to any group exercising influence over the individual, from the proximal family to the distal society.

We tend to avoid a study of these issues because they are not individual constructs, even though they have consequences for the individual who is a member of the dyad, group, organization, or society. This intellectual indifference is a consequence of the greater complexity involved in doing such research, the loss of statistical power when one works at this higher level of analysis, and the need for access to greater numbers of research participants. It is also a consequence of our disciplinary foregrounding of the self, what Sampson (1981) called "individuo-centeredness," itself a legacy of Greek individualism transmitted into our American present (Sampson, 1977).

Nonetheless, things are changing. Ho (1998) has called for the study of "relationshipology," and some have responded by doing social psychological research where the dyad (McAuley, Bond, & Kashima, 2002) or the group (Bond & Ng, 2004) itself is the focus of interest. The approach has been extended to the organization by Hofstede, Neuyen, Ohayv, and Sanders (1990) and to the nation by many researchers, most recently Georgas and Berry (1995).

Shared cognitions as a construct can be applied at any of these levels of interest and analysis. What is required is to produce some measure of sharedness—a difference score, a standard deviation, and so forth—for the unit in question. At the societal level, Au (2000) examined "satisfaction variation" across a number of nations, with Austria showing the highest intra-cultural variation (ICV), and the Netherlands, the lowest.

Whatever the metric of interest, social scientists must then impart some meaning to the unit's score on this metric by linking it to other unit-level variables that carry some theoretical implications. Au and Cheung (2002), for example, showed that higher ICV in employee-reported job autonomy was associated with lower job satisfaction across 42 nations. The challenge for psychologists is to make sense out of such nation-level findings; we are trained to think as individuals, often using our own phenomenology to great advantage in this process (Bond, 1997). But with constructs of sharedness, we are no longer working with individual dynamics but with the dynamics of relationships, groups, organizations, and so forth. This is unfamiliar territory. If we are ever to develop an

understanding of the impact exercised by these social contexts, however, we must begin doing so. Linking macro structures of a society to shared cognitions is one way forward.

SHALOM H. SCHWARTZ

As Michael Bond suggests, studying shared cognitions should be more central in cultural work. Students of culture generally assume that one thing that defines a cultural group is a modicum of shared cognitions—beliefs, values, attitudes. Besides measuring the extent to which members of a society or other cultural group share similar values, the question of what accounts for national differences in the degree of value consensus interests me. Galit Sagie and I studied this issue with data from matched samples of teachers from 42 countries (Schwartz & Sagie, 2000). We treated within-country variance on each of 10 individual-level values as a measure of consensus. We found that two macro-level variables, country levels of socioeconomic development and of democracy, both related significantly to value consensus. Development increased overall value consensus, whereas democratization decreased it.

These findings suggest that macro structures do influence the degree of shared cognitions within societies. A weakness of this study is that it did not use representative national samples, so we are not sure that it measured societal consensus very well. With the proliferation of international surveys that measure attitudes, beliefs, and values in representative national samples, it is possible to address the question of relations between macro structures and shared cognitions of many types in a rigorous manner. This is a topic ripe for investigation.

MICHELE GELFAND

I concur with my colleagues that studying the antecedents and consequences of shared cognitions is a very exciting frontier of cross-cultural research. Levels of analysis scholars refer to these models as dispersion models (Chan, 1998), where the theoretical and empirical focus shifts from that of central tendency to differences or variance in values, attitudes, beliefs, etc., among members of a given group. Dispersion models themselves are quite diverse. For example, dispersion models of culture can be developed with respect to variance in personal values (e.g., *I value X*) or variance in subjective cultural press (e.g., *People in this culture value X*). They can also be applied beyond the individual level of analysis to incorporate cultural differences in variance within organizations (e.g., organizational culture strength) and between organizations (e.g., due to strong institutional pressures to conform; DiMaggio & Powell, 1991).

In developing theory regarding culture and variance, I think we need to consider both *top-down* and *bottom-up processes* that afford shared cognitions (or lack thereof) within societies. With respect to the former, a central question is, What are the aspects of societal institutions and everyday situations in which individuals participate that afford *common experiences* that ultimately restrict variability in how individuals view the environment? In our recent work (Gelfand, Nishii, & Raver, 2006; Gelfand, 2007) we focus on the situational level of analysis and show that nations vary in the degree to which everyday situations are *strong versus weak*, which, in turn, affects the degree of sharedness among citizens. The notion of situational strength dates back to Goffman (1963), who theorized that there is a continuum on which situations can be placed, depending on how much they demand situationally appropriate behavior. Mischel (1977) later elaborated upon these notions, arguing that some situations are strong in that they “prescribe and limit the range of expected and acceptable behavior” and leave little room for individual discretion in determining behavior. By contrast, other situations are weak in that they allow a wide range of acceptable behaviors and place few external constraints on individuals (Mischel, 1977).

We argued that given that individuals in cultures high on situational constraint are exposed to repeated, consistent, and common situational experiences, they will develop more similarity in their self- and worldviews. By contrast, individuals in cultures low on situational constraint

have more varied and idiosyncratic experiences and thus will be more likely to diverge in their self- and worldviews (cf. Strauss & Quinn, 1997). In support for this notion, we showed that nations that have stronger situations indeed have lower variability in personality attributes (as measured by standard deviations) as compared to nations that have weaker situations (Gelfand, 2007). These results are also consistent with Shalom's former analysis as discussed above. For example, our data show that strong situations are related to lower levels of democracy, both of which are related to lower variability in personality. Further explicating the linkages between macro institutions, everyday situations, and shared cognitions is an important direction for cultural and cross-cultural psychology.

In seeking to develop theoretically grounded models of culture and variance, it will also be important to examine how *bottom-up processes* relate to differences in shared cognition across cultures. Bottom-up processes focus on how individual-level characteristics of citizens (e.g., personality, needs, values) result in higher or lower levels of shared cognition through social interaction processes (Kozlowski & Klein, 2000). Through daily interactions and information sharing, individuals engage in a process of sense-making and together develop shared realities; and it is through such bottom-up processes that characteristics of individuals become amplified and have emergent characteristics at higher levels (Kozlowski & Klein, 2000). A critical question, then, is, What are the individual characteristics that through bottom-up processes contribute to shared cognition, and how might they systematically vary across groups? For example, nations that have individuals who are high on need for closure (Webster & Kruglanski, 1994) would be expected to have higher shared cognition, as such individuals have a higher need for consensus seeking and are more likely to create shared realities as compared to nations with individuals lower on need for closure (Kruglanski, Pierro, Mannetti, & De Grada, 2006). In all, dispersion models of culture, as articulated through both top-down and bottom-up processes, are an exciting cross-cultural frontier.

MICHAEL W. MORRIS

Psychologists have paid scant attention to social structure and relation to shared cognitions, perhaps as Bond suggests because of our disciplinary biases. Fortunately, as Gelfand illustrates, there are theories and methods for studying structure, and sharedness can be borrowed from neighboring social sciences. Theories of macro-structural influence on shared cognitions have been advanced by political and economic thinkers, at least since Marx's (1972/1844) argument that capitalism engenders working class alienation. Inkeles (1960) used country-level analyses to investigate a structuralist thesis that industrialization engenders "modern" values, including individualism. Measures of economic development were strongly associated with this value content, although salient exceptions such as Japan qualified his argument. However, such country-level associations might reflect an opposite-direction causal process akin to Weber's (1963/1922) culturist thesis that shared values or ideas lay the groundwork for the development of macro-level economic structures. Indeed, Inglehart (1997) takes country-level associations between values and macro-structures as evidence that the proliferation of "postmaterialist" values paves the way for the development of liberal democratic institutions.

Schwartz brings to this debate a more comprehensive and rigorous model of values, which enables correlating not only content but also degree of consensus with macro-level structural variables. However, as the history of this issue illustrates, these correlations can be interpreted in terms of structuralist, culturist, or reciprocal causation. Country-level datasets seem unlikely to unambiguously resolve the causal directions involved, given that structural and cultural forces at the country level are non-independent, interacting, and highly dependent on unique historical events. Looking back on his own inquiry, Inkeles (1978) suggested that focusing solely on macro-level structures was a mistake and that micro-level social structure is more proximally linked to shared cognitions. The impact of macro-level structures, such as industrialization, on cultural values/norms may work through micro-level social structures, such as the prevailing

interpersonal relationships, roles, and situations. For example, what industrialization means, on the ground, is that people work in bureaucratic factories and offices rather than traditional family farms and trades and hence participate in they are embedded in different kinds of relationships to coworkers and bosses that engender different value-priorities.

Micro-level social structure can be studied using social network analysis. Occupying particular kinds of network structures gives rise to predictable sorts of feelings, cognitions, and behaviors; for example, embeddedness in a clique of highly interconnected associates tends to produce trust and cooperation (Menon & Morris, 2001). In the spirit of Durkheim's (1951/1987) contrasts between tightly knit and loosely knit social fabrics, surveys measuring the *density* of interpersonal networks in different countries find that they are more interconnected in Chinese and Israeli cities than American and British cities (Fisher & Shavit, 1995). These differences in micro-social structures may account for some of the many social cognition and behavior differences between individualistic and collectivistic countries that have been of central interest in cultural psychology. For instance, if in Chinese societies, compared to Western societies, it is more likely that a person's friends are densely interconnected among themselves, then this may explain why the difference between stranger and friend conditions so often matters more for Chinese than American samples. This could be tested by measuring in a survey of relationships the degree to which particular friends are embedded in ties to the rest of a participant's network, and the degree to which those friends incur trust. (The network approach focuses on concrete particular relationships rather than categories, such as "one's friends" or "one's in-group." Network ties are thought to be connections that crystallize and become binding from actual history of sharing, such as socioemotional or economic exchange. This approach foregrounds sharing in the sense of active exchange between people rather than just agreement in their thoughts.)

Another reason to studying micro-level social structures, such as the institutionalized patterns of relationship networks, is that changes in macro-level structures do not tightly constrain micro-level structures. The same macro-structure can often coexist with different kinds of micro-structural tendencies. Consider the paradox for Inkeles of highly industrialized but not very individualistic Japan. The answer may be that family-like micro-structures became institutionalized within industrial workplaces in Japan, rather than the more impersonal patterns that accompanied industrialization in most other countries. Particularly when changes in macro-structures are imposed by external forces, they may not shift the micro-structure of interpersonal relationships and hence, shared cognitions. Putnam (1993) notes that the introduction of a standardized democratic constitution to the different regions of Italy failed to create a common political climate, the predominant pattern of micro-level social structures in the north was horizontal ties to community organizations, while in the south vertical ties to local patrons. Likewise, in corporations, standardizing formal organizational structures across different national divisions does not produce uniform patterns of interaction and workflow, as culturally distinctive patterns of informal interaction between coworkers persist within the macro-structure of the organization chart (Morris, Podolny, & Ariel, 2000a). Some cultural differences in the modal patterns of micro-structure are, for instance, that coworker relationships are less *multiplex* in the U.S. than in Hong Kong, Germany, and Spain (meaning that Americans are less likely to rely on the same coworker as a source of socioemotional and career support, but rather are more likely to find these from two different coworkers), friendships are directed less upward toward supervisors in Hong Kong than the other settings, informal communication along the lines of official job descriptions is more likely in Germany than the other settings, and long-enduring workplace friendships are more likely in Spain than the other settings (Morris, Podolny, Sullivan, 2008).

The micro-structure of social relationships also varies in important ways within cultural groups such as nations. For example, Chinese-American biculturals who are embedded in different structures of ties to Chinese and non-Chinese friends tend to have different levels of bicultural identity integration (Mok, Morris, Benet-Martínez & Karakitapoğlu-Aygün, & 2007).

Thus far, I have suggested that some group differences in social cognitive tendencies may be determined by social structure at the micro-level. However, in many cases these tendencies do not arise purely from occupying a micro-structure; they depend also on the cultural lenses or schemas through which people construct interpretations and responses to these structural predicaments (Emirbayer & Goodwin, 1994). Economic exchange among two businesspersons, such as investment in each other's companies, may give rise to particular shared subjective states regardless of culture, or it may be that cultural lenses would moderate these consequences. One can ask whether the existence of an objective relationship between two individuals, such as the flow of economic resources, gives rise to a shared subjective state, such as affective rapport or mutual perceptions of reliability. Surveys of American versus Chinese businesspeople find that economic exchange increases cognitive trust in both cultures whereas it increases affective trust only for Chinese and not Americans (Chua, Ingram, & Morris, 2008; Chua, Morris, & Ingram, 2008). Likewise, feelings of obligation to help another person depend on what is directly received from that person, as well as to whom that person is connected, for both Americans and Chinese, but depend for Chinese on traditional Chinese norms of favor, or *renqin* (Morris, Podolny, & Ariel 2000b; Morris & Chua, 2008).

3. HOW CAN STRUCTURAL AND PROCESS MODELS BE INTEGRATED INTO A COHERENT THEORY OF CULTURE?

SHIGEHIRO OISHI

In general, I am a big fan of process models. I think that the most exciting thing about scientific inquiry is to move from confusion to understanding via distilling complex phenomena into lawful relations. For instance, I get excited when I read about research on singing birds and find out that (a) birds start singing in spring when days get longer (mildly interesting), (b) as days get longer, the secretion of male hormone increases (very interesting), and (c) the injection of male hormone induces singing (extremely interesting; Konishi, 1994). This is exciting because I feel that I understood the processes governing birds' singing. Obviously, there is much more to birds' singing (e.g., protecting their territories and attracting potential mates), and functional aspects are not well-depicted by a simple process model. However, in general, scientific advancements are made by understanding underlying processes of target phenomena, however they may come about.

Having said that, it has to be acknowledged that the understanding of the processes of phenomena often comes after we have understood their structure. In biology, early researchers painstakingly created the taxonomy for animals, and settled the basic structural issues (e.g., what distinguishes one animal from another; what the important dimensions are). Current DNA work is built on Watson and Crick's (1953) discovery of the structure of DNA, and much of the current biological research in general is built on the solid foundation of the earlier structural work.

Similarly, personality research was struggling in the 1960s to early 1980s, when there was no agreed-upon structure of personality. Once the five-factor structure (and other variants) was recognized (e.g., Goldberg, 1993), personality researchers were able to move on to process-related investigations such as the development of personality and its origins.

Despite my general enthusiasm toward process models, therefore, the importance of the structural model cannot be overstated. Although many of the structural models of culture have been under attack, they have continued to provide extremely useful research directions and "maps" for research. Hofstede (1980) proposed the four-factor model of culture: individualism-collectivism, power distance, uncertainty avoidance, and masculinity-femininity. As widely known, Triandis (1989) made the individualism-collectivism dimension extremely popular in the 1980s and 1990s. Markus and Kitayama (1991) presented the independent and interdependent self model. There are other important structural models on value orientations, such as Schwartz's (1994) and Inglehart and Baker's (2000). These models demonstrate that diverse arrays of cultural differences can be explained most succinctly by differences in these dimensions. The structural models do not, however, provide

answers to the “why” questions: Why are some cultures more individualistic than others? Why do some cultures emphasize egalitarianism, while others emphasize hierarchy?

To answer the “how” and “why” questions about culture, researchers need to build process models. As more process-oriented investigations on culture progress, they can inform the structural model as well. Process-oriented investigations tend to pay attention to more concrete variables, and are thus likely to elaborate the simpler structural model.

Kitayama, Ishii, Imada, Takemura, and Ramaswamy’s (2006) recent work in Hokkaido, the northern island of Japan, is a great example of how research that started with a structural model, in this case of the independent and interdependent self, could become a process model. The genius of their investigation was that they added a process-oriented variable (i.e., voluntary settlement) to the structural model to allow the model to answer the “how” and “why” questions regarding culture. By so doing, they were able to test a theoretical prediction about the effect of this variable on independent psychological tendencies.

Similarly, we (Oishi, Lun, & Sherman, 2007; Oishi, Rothman, et al., 2007) started our investigation based on individualism-collectivism but added the process-oriented variable of residential mobility (which, by the way, was already recognized by Triandis in his widely cited 1989 *Psychological Review* paper). By so doing, we were able to create and test process-oriented hypotheses (e.g., if residential mobility caused individuals in the U.S. to focus on the personal self, then there should be parallel individual and regional variations within the U.S., along the dimension of residential mobility).

Likewise, much of the cultural priming work pioneered by Chiu, Hong, Morris, and others can be construed this way. These researchers added “accessibility” to the structural model of individualism-collectivism, and made the well-known structural model simultaneously a process model (Hong & Chiu, 2001; Hong, Morris, Chiu, & Benet-Martínez, 2000).

Finally, Nisbett and colleagues’ work on holistic versus analytic thinking style is both structural-and process-oriented. It is a structural model in the sense that it allows for two different types of thinking within the same population. In addition, Nisbett (2003) conducted a thorough historical analysis, and builds a process model in which cultural traditions and ecologies (e.g., agriculture versus herding) are believed to give rise to different social networks in Greece and China, which in turn give rise to different thinking styles in the West and East (see also Nisbett & Cohen’s [1996] culture of honor work).

In many ways, then, structural models and process models are not as distinct or mutually exclusive as they are often believed to be. Many so-called structural models of culture already have process-oriented components (e.g., wealth and mobility as antecedents of individualism in Triandis, 1989). In addition, the contributions of structural models and process models often go hand in hand. In an earlier stage of a program of research, the structural model takes center stage, whereas a process model may gain focus in later stages, because the nature of questions often changes at different stages of the research program. Clearly, we need both structural and process models. Structural models give a “map” that provides basic guidelines and possible research directions (e.g., where to dig), whereas process models depict causal linkages between culture and individuals. As seen by the above examples, however, structural models *can* and *should* be modified to process models by adding explanatory variables to answer the all important “why” and “how” questions. This is at least how I see advancements in cultural and cross-cultural psychology being made in the future.

ARA NORÉNZAYAN

Most scientific inquiry proceeds through two stages (Hempel, 1965), and cultural psychology is no exception. In the first stage new theories are proposed that facilitate the observation and discovery of interesting phenomena, and various methodological confounds are ruled out. This is the “what”

question. In the second stage, the inner workings of phenomena are more precisely explained and underlying mechanisms are identified. This is the “how” question.

Heine and Norenzayan (2006; see also Norenzayan & Heine, 2005; see also Atran, Medin, & Ross, 2005, for a similar observation) argued that cultural psychology is bound to follow the same pattern. Stage 1 research proposes theories that predict cultural differences in particular psychological processes, whereas Stage 2 research seeks to more precisely explain the observed cultural differences by identifying the critical variables that vary between two or more populations that account for the differences in psychological functioning. This parallels the transition from structural explanations to process explanations of culture. In Stage 1, systematic cultural differences are found, methodological confounds are eliminated, and general theories are developed to explain these differences. This is the phase where structural explanations predominate. For example, systematic cultural differences are found in the habitual ways by which people reason and solve problems (e.g., Nisbett, Peng, Choi, & Norenzayan, 2001) or in the ways by which approach and avoidance motivations are differently structured (Heine, Lehman, Markus, & Kitayama 1999). Psychologists in general tend to be enamored by Stage 2 research, and no doubt we need process explanations for psychology to mature as a science. However, Stage 1 research is a key element of scientific progress for a young discipline, and as Rozin (2001) has argued, constraints on this type of research can damage the prospects of a discipline to develop into a mature science. Without solid data from structural research, process explanations cannot get off the ground in the first place. As new phenomena are discovered and a coherent picture of cultural patterns emerge, Stage 2 research is initiated, and the challenge becomes to offer underlying process explanations for the cultural differences, and competing accounts for mechanisms are advanced.

Cultural psychology has already moved into Stage 2 research, with researchers examining, for example, whether the cognitive activation of different self-concepts explains cultural differences in thinking patterns (Kühnen, Hannover, & Schubert, 2001; Kühnen & Oyserman; 2002; see also Hong et al., 2000), and whether variation in residential mobility explains cultural variation in the self-concept (e.g., Oishi, Lun, & Sherman, 2007). But I agree with Shige Oishi (this volume) that structural and process models are not neatly separated or mutually exclusive, as is sometimes believed. These two approaches feed on each other and greatly overlap (as they should). Structural explanations motivate process-oriented research, which in turn leads to additional discoveries of interesting phenomena (more structural data), which, in a self-reinforcing spiral, push process models to ever more generality, refinement, and precision.

I will conclude by pointing out that there is a third stage of scientific research, which cultural and cross-cultural psychology has yet to delve into. In this stage, phenomena are explained in terms of their origins. For example, in the physical sciences, scientists develop not only structural explanations (e.g., the periodic table, geological maps) and process explanations (e.g., theory of relativity and quantum physics), but also historical ones (the most ambitious being the big bang theory of the origin of the universe). This is the province of historical explanations. In psychology, historical explanations would entail development within individual lives (ontogeny), within social groups (cultural history), and within the species (phylogeny or evolutionary history). In short, this is the “why” question that is sometimes talked about but not fully addressed. For example, we need to explain how cultural differences in habits of thought develop in children (ontogeny), what socio-economic and ecological factors sustain them (cultural history), and what innate cognitive potential in the human species makes culture possible in the first place, and gives rise to additional cognitive capacities that are then shaped, modified, and elaborated by cultural experiences.

There has been some work in this line of research, but nearly not enough. The latter (coevolutionary) explanation is perhaps the least developed, possibly because we still know little about how evolutionary pressures and cultural patterns interact. However, researchers in neighboring fields are beginning to make headway on this, and cultural and cross-cultural psychologists have

much to gain by incorporating models and ideas emerging from an evolutionary perspective that is sensitive to the cultural nature of humans (for further discussions, see for example, Fessler, 2006; Henrich et al., 2005; Norenzayan, 2006; Norenzayan, Schaller, & Heine, 2006; Richerson & Boyd, 2005).

4. HOW DO PERSONAL EXPERIENCE AND CULTURAL TRADITIONS INTERACT TO GIVE RISE TO INTRACULTURAL/ REGIONAL VARIATIONS WITHIN A NATIONAL CULTURE?

RICHARD W. BRISLIN

Intercultural contact, one of the major topics I treated in my chapter for this volume, will always be a source of new ideas as people have experiences in one culture and then return to the culture where they were born and socialized. Returnees will have new ideas and will discuss them with others. People in any one culture will then consider with their countrymen the new ideas brought from elsewhere and will decide whether and how they will integrate the new ideas with existing and long-standing traditions. In many Pacific Island societies, for example, there is a high value placed on continuing interactions within one's collective. As the population of many islands has increased, however, many residents have moved elsewhere for employment. Currently, use of the Internet is now a means of keeping traditional ties alive in a multiplicity of ways: web pages, email, MySpace pages, YouTube short video clips, instant messaging. People who have stayed on the islands where they were born now have quick answers to questions such as, "How is your nephew who is living in California doing?"

MICHAEL HARRIS BOND

Culture is an amorphous concept, in part because there are so many micro-cultures that act upon the individual in the course of a lifetime. We tend to use the broadest, most distal conceptualization of culture in our cross-cultural work, often operationalizing culture as a nation. This is a defensible procedure (Smith, Bond, & Kağıtçbaşı, 2006, chap. 4), but we all appreciate that this is a first approximation, a rough and general first cut at the question of influence. Each person is subject to local, more proximal "cultural" influences operating on his or her responding. Each of these local cultures of family and, then later, school and, even later, workplace operates within a broader national system but has its own sources of influential factors. These sources will arise out of the ethnicities and languages of his or her parents, the curriculum and educational procedures of his or her type of school, the type of work he or she performs later in the course of life, the specific organizations where he or she labors, and the professional organizations, or not, associated with this work.

Each of these proximal sources of influence on the individual across the lifespan is itself embedded within progressively more distal sources of influence. Writing about organizations, Klein, Dansereau, and Hall (1994) note:

By their very nature, organizations are multi-level. Individuals work in dyads, groups, and teams within organizations that interact with other organizations both inside and outside the industry. (p. 198)

The same could be said for the nuclear family and the classroom, our classic agents of socialization. Individuals are embedded within a cascading sequence of influence across the lifespan.

All responses and social performances, the objects of our study as social psychologists, are thus historically derived and embedded within layers of influence. Generally the local, proximal cultures are regnant in their influence, because these are the ongoing groups whose members reward and punish the individual on a daily basis, shaping his or her expectations and thereby channeling his or her behaviors. But the "footprints" of the individual's past sources of influence will endure, channeling the individual into certain types of groups later in the life course and shaping that individual's responses to the ongoing, proximal sources of influence brought to bear by contemporary groups.

These sources of influence throughout the lifespan and across the layers of proximity will be filtered through the personalities of the individual concerned. Given the range of temperamental variation observable in babies (e.g., Thomas & Chess, 1977) and later in the personality of adults across all cultural groups (e.g., Allik & McCrae, 2004), it is hardly surprising that there is considerable within-culture variation in individual responding. Cultural groups vary in the extent of the variability permitted (e.g., Hofstede's [1980] uncertainty avoidance), and that variability will differ across behavioral domain and situational factors (see Gelfand, *dialog* Question 2), but there is inevitably some variation within the broader national context for acceptable social performance. Some of this variation will be explained by our classic unpackaged variables of region, ethnicity, religion, language, and gender, but much will remain simply as a result of individual differences in personality found everywhere.

This is the general conceptual scheme by which I understand this issue. It is woefully short of empirical detail. Multicultural studies of ethnic, occupational, or linguistic variation are rare. Kohn, Naoi, Schoenbach, Schooler, & Slomczynski's (1990) work on value endorsement across social class in three cultures is a welcome exception. So, too, is Hofstede, Bond, and Luk's (1993) research on perceptions of organizational culture across gender, professional training, and type of organization in two national cultures. We need further work to prod our sense-making on this issue of within-culture variation. The educational psychologists have set a standard for us in their research across the many levels of influence on educational outcomes, and have provided us with a statistical tool, HLM, that can manage the complexities involved. Their approach could easily be taken to the data available from the four waves of the World Values Survey, for example; it simply requires the vision, the dedication, and the curiosity to do so.

KWOK LEUNG

Cultural differences are often attributed to cultural differences in basic values, which are slow to change partly because they are deep-seated, and partly because they are abstract, shielding them from the influence of recent personal experiences. In contrast, social behavior is much more susceptible to the influence of recent experiences and can change drastically in a short period of time. In our recent cross-cultural work on conflict, reported in a chapter in this volume, we found that contrary to expectation, Chinese from Beijing endorsed a competitive conflict style more than did Australians from Sydney, and we attribute this unexpected cultural difference to the competitive ethos salient in big cities in China. While the highly ambitious, ultra-competitive Chinese in big cities may embrace the traditional value of harmony, they don't shy away from cut-throat competition because their experience, vicarious or real, tells them that it is the most effective way to get ahead. Their counterparts in rural, sleepy towns in the poorest areas of China, where the economic wind of change has eschewed them, are unlikely to be aggressive, resulting in visible regional differences in conflict behavior in China. Our current models of culture are not good at capturing the interplay between cultural traditions and the influence of recent experiences, and this is definitely a void that needs to be addressed in future theorizing on cultural influence.

HARRY C. TRIANDIS

Culture can be conceived as a schedule of reinforcements. As people experience different situations and respond, if their responses get reinforced, their behavior is shaped in a certain direction. Usually, when people do what is traditional in their culture, their responses are reinforced, and that increases the probability that in the future they will behave traditionally.

For each dimension of cultural variation, there is a set of behaviors that characterize it. In cultures that are simple, people get reinforced for analyzing situations in a simple way and responding traditionally. When the culture is complex, people analyze situations in more complex ways, and their responses may show creativity and deviation from tradition. In tight cultures people will

be especially likely to follow the norms and traditions of the culture. In loose cultures people will be more likely to deviate from norms and to develop novel ways of responding. In collectivist cultures people are especially likely to pay attention to interpersonal and in-group situations. They are likely to behave according to in-group norms and goals, to stay with the in-group even when they are dissatisfied with it, and to pay a lot of attention to the context of events. In individualist cultures people are especially likely to think of their personal goals, develop new behaviors, and leave the in-group if they are dissatisfied with it. They are especially likely to seek cognitive consistency.

There is a myriad of dimensions of cultural variation, and each can be reflected in what people do and the reinforcement they receive.

MICHAEL W. MORRIS

Cross-cultural psychology traditionally contrasts groups from two or more broad demographic categories, such as nations associated with different cultural traditions. Yet models of cultural influence on behavior should explain not only this variation across categories but also the (often greater) variation within these categories. As the previous comments on this question note, one important source of within-category variation is the *local groups* nested within-nation. Bond points out the proximal socializing role of groups such as families, schools, and organizations that inculcate different values and norms. Leung notes that individuals' behavior can become shaped by local differences, even if they have not been socialized into different value orientations, as daily social experiences and perceptions in a social setting shape the expectancies underlying their social decisions, such as competitive as opposed to acquiescent tactics in conflicts. Someone who moves from a sleepy Chinese village to contemporary Beijing will have daily experiences and perceptions of competitive behaviors by fellow Chinese people; over time this will shift his sense of the normal or typical way people behave in conflicts, with accompanying changes in his expectancies and habitual style of conflict resolution.

Consistent with Leung's analysis of regional variation, recent evidence suggests that individuals' perceptions of what the typical other tends to think or do, or "perceived in-group norms," are critical to understanding the influence of national cultures as well. Zou et al. (2008) measured familiar cross-national differences in social behavior and cognition, examining two possible individual-level mediators of the nationality effect: the values/beliefs to which the participant is *personally committed* and the values/beliefs that the participant *perceives to be typical* of fellow in-group members. Consistently across studies of conflict resolution, attribution, and counterfactual thinking, country effects were mediated by the latter, not the former. In other words, it was a participant's perception of the in-group norm, rather than his or her personal commitments, that primarily predicted the extent to which he or she exhibited the response tendencies characteristic of his or her nationality. This evidence dovetails with Kitayama's evidence that some psychological differences across countries arise from differences in distributions of everyday social situations (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997), while suggesting, akin to Leung's argument, that not all the individuals in a nation encounter its typical ecology of social situations and acquire the attendant perceived group norms.

In addition to accounting for some effects of national categories and some effects of local groups within national categories, the notion of cultural influences running through perceived norms elucidates another important source of within-category variation, the *personal motives* that interact with cultural knowledge to determine its influence on behavior. A characteristic feature of cultural knowledge is that it is shared, which enables its use in one's community and it is known to be shared such that it can be used in communication and coordination. Yet it can be used in various ways. By adhering to a culturally conventional belief or ignoring it or contradicting it, one can accomplish different ends, such as making judgments that will find broad acceptance within the society, staking an identity claim inside (or outside) the mainstream, expressing oneself in an innovative way,

expressing a critique of a traditional cultural notion, and so forth. Depending on these personal motives, cultural codes will be manifest in different ways and to different degrees in a person's judgments and behaviors. This is not to say that the motives are always or usually conscious; most likely, motives moderate the influence of cultural representations without the person being conscious of how or why. In this sense then, motives are pivotal in how the person *uses* the culture as well as how the person is *used by* the culture.

Metaphors and Motives

The role of personal motives in intracultural variation is underappreciated in cross-cultural psychology, I believe, because of the prevailing metaphor for cultural influence on behavior. In a prevalent computer metaphor, cultural knowledge as described as mental software that is installed during socialization; in this picture, the person operates on these scripts like a cultural robot. In this view, each individual is mechanically driven by their own private, internal copy of the cultural code. This metaphor fails to capture how the sharedness of culture is relevant to its influence on behavior and the motives involved. The traditional metaphor of culture as river currents that people navigate is better in capturing the notion of cultural patterns in the environment that individuals negotiate in the process of their personal journeys. Some sailors coast in the mainstream current where it is crowded but predictable and easy. Others tack across the eddy currents at its margins or even paddle upstream. The river metaphor captures that social behavior plays off of cultural traditions, whether or not one is conforming to those traditions.

However, the river current metaphor fails to capture the plurality of cultural influence on behavior. Unlike a boat in a river, persons are embedded in a multiplicity of cultures. A better metaphor is to think of *culture as a repertoire*, such as that of a dancer or musician trained in an artistic tradition. A repertoire is not just a list of songs or dances but an array of the basic moves that constitute a shared style and tradition, like as the dance steps of salsa or chord progressions of jazz. These patterns are inscribed into the artist's mind and body and can be deployed to generate a performance without effort or self-conscious attention that is coherent in that its parts fit together. Also, the success of the performance hinges very much on the sharedness of the codes in the repertoire. A salsa dancer's moves will mesh with those of another dancer steeped in the tradition and will resonate with expectations of observers familiar with the tradition.*

Yet, of course, an artist is not a robot; the way a repertoire is drawn upon to guide behavior differs from one dancer to the next, depending on their motives. One dancer's desire to attain a purely classical style might lead her to treat the steps of salsa as a strict orthodoxy to be vigilantly followed. Another dancer's motive to express or enjoy herself might result in her using the form of the salsa as a loose organizational structure within which to weave improvised steps. Still another performer might make a meta-level statement to an audience by deliberately subverting the traditional salsa, such as facing away rather than toward her partner or exchanging the role of lead. In all three cases, the traditional codes of salsa are used by the dancer to generate her performance, but in different ways that stem from different motives.

The repertoire metaphor is particularly apt for capturing motives in drawing among multiple cultural traditions. Consider a guitarist who grew up playing flamenco music in a gypsy village and then moved to the city to study jazz. Having internalized two traditions, he can draw on either repertoire, depending on his situation and his motives toward it. When trying out for a band led by a sax player, he would probably draw on his jazz riffs. When playing at a family wedding, he might stick to the pure flamenco canon. When working alone in his studio striving to develop an

* In elucidating how the perceived sharedness of cultural scripts and schemas matters in their use, this metaphor serves better than the cultural knowledge network as a *toolbox* metaphor that my colleagues and I have used in past years to express our dynamic constructivist framework for cultural influence on behavior (e.g. Hong et al., 2000). The repertoire metaphor proposed here is an elaborated version of one suggested by Swidler (2002).

innovative style, he might try drawing on both repertoires and combining them to create a fusion style.

Motives for Adhering to Perceived Norms

Given that a cultural tradition is just one of many possible bases for planning behavior, what makes a person adhere to a perceived cultural norm? Thinking about motives quickly leads to a nonparsimonious answer—qualitatively different motives may be involved in different kinds of cultural influence. Swidler (2002) distinguishes between the influence of culture in settled versus unsettled lives. The former refers to non-self-conscious adherence to taken-for-granted conventions. The latter refers to self-conscious effort to enact a newly embraced identity, such as the vigilance with which a recent convert to a religion might guard against its prohibitions, or eagerness with which a management trainee might engage customs of the corporate culture. Cross-cultural psychology has almost exclusively focused on cultural influence in the context of settled lives, although emerging topics such as religious fundamentalism may require that we find ways to study cultural influence in unsettled lives.

Several motives that impel people to adhere to cultural traditions in settled lives have been identified in recent years. The motive of buffering existential anxiety by defending one's cultural worldview is evoked by situations that make mortality salient (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). Bicultural individuals who are placed in a situation of mortality anxiety tend to adhere to whichever of their two cultural identities has been made salient (Halloran & Kashima, 2004).

The motive of making judgments and decisions that have consensual validity is greatly affected by the situational factor of discourse genres. Certain genres of speech and writing carry implicit expectations about whether one should restrict oneself to commonsensical judgments that virtually everyone in the audience shares (*doxa*, or orthodoxy) or one should offer more personal and provocative judgments (heterodoxy or heresy). For example, in journalism news reporting calls for objectivity, meaning only consensual inferences, whereas opinion writing calls for saying something that expresses a personal view. Comparing the inferences of journalistic writing in an American newspaper, I found (Morris, 2007) that front-page news articles, an orthodox genre, are characterized by culturally normative attributions to individual responsibility, whereas op-ed articles, a heterodox genre, are characterized by non-normative attribution patterns to situational and structural causes.

Although situations may drive most variance in personal motives, motives also vary dispositionally. The chronic motive of reaching consensually supported judgments is measured by need for cognitive closure (NFCC). Whereas high NFCC individuals like to think in ways that fit the group norm, low NFCC individuals seem to dislike following these conventional patterns, much like some people dislike voicing clichéd expressions. Among individuals who immigrate alone to a new culture, higher NFCC predicts faster learning of the host culture, yet among those who come in a heritage-culture group, it products slower learning and clinging to host culture norms (Kosic, Kruglanski, Pierro, & Mannetti, 2004). Both in American and Chinese samples, individuals high in NFCC were more likely than others to exhibit attribution biases typical of their cultural tradition (Chiu et al., 2000). Likewise, individuals high in NFCC were more likely to make conflict decisions typical of their cultural tradition (Fu et al., 2007).

Motives and Responses to Cultural Cues

Attention to motives in cultural influence can help us understand puzzles in the literature on responses to cultural cues. A long tradition of research manipulating language of instruction with bilingual, bicultural participants, such as Hong Kong Chinese, has sometimes found assimilative and sometimes contrastive responses (Bond & Kang, 1982). In support of the view that this depends on identity motives such as ethnic identification and affirmation, recent evidence suggests that contrastive findings are not restricted to transparent dependent measures and can occur with measures not transparently connected to culture, such as self-esteem (Chen & Bond, 2007). In support of the view that the shifts in response are active efforts to adjust to expected audiences, studies have found

that audience manipulations override language manipulations and that they are sapped by cognitive load (Briley, Morris, & Simonson, 2005).

Another strategy has been measuring individual differences that tap into chronic motives. Studies with Chinese-American biculturals find that exposure to iconic images of the tradition increase adherence to the norms of the primed culture in social judgments (Hong et al., 2000, 2003), values (Briley & Wyer, 2001) and conflict decisions (Wong & Hong, 2005). A series of studies measured individual differences in degree of identity integration versus conflict in Chinese-Americans, finding that biculturals with more identity conflict were more likely to exhibit contrastive responses to primes of iconic Chinese or American images (Benet-Martínez, Leu, Lee, & Morris, 2002). Yet what specific motives, bound up in identity conflict, drive these biculturals to react against cultural cues? Zou, Morris, and Benet-Martínez (2007) measured identity conflict as well as their degree of identification and disidentification with each of their cultural heritages. Identification is the motive to be at one with a cultural tradition, to act in ways that personify the tradition. Disidentification is the motive to distance oneself from a cultural tradition, to avoid acting in ways consistent with the tradition. Xal. found that assimilation responses increased with the participant's degree of identification with the primed culture, and contrastive responses increased with the participant's degree of disidentification. Disidentification, furthermore, was highly associated with identity conflict, which may elucidate why identity conflict is associated with contrastive responses.

Summary

The metaphor of cultural knowledge as an artist's repertoire is useful in illustrating a range of personal motives that moderate the influence of cultural knowledge on social cognition and behavior. Although the identification of motives is just beginning, the evidence thus far is that cultural psychology would profit from a picture of the person as a creative user of cultural codes rather than as a passive pawn of cultural programming. What Geertz (1973, p. 92) called our "traffic with symbols" is not merely rule following: Cultural norms and scripts are vehicles that enable us to travel effortlessly through extended sequences of meaningful inferences and actions, yet they are vehicles that we use creatively and playfully in order to keep from getting bored—we drive them in reverse as well as forward, and we switch between different models, familiar domestics and foreign imports, depending on where want to go and who we will see.*

Dov COHEN

There are no asocial people. There are no acultural situations. People are always acting in a social-cultural context. However, just because people are always in a culture does not mean they are always of it. People act in ways that go against cultural norms, expectations, rules, scripts, and values; and they do so for both very "rational" and very "irrational" reasons.

Studies of national character and one wing of the old culture-and-personality school fell out of favor some years ago, because of their emphasis on culture as producing a single prototype (Konner, 2007; LeVine, 2007). However, there is more than one "personality type" within a culture because there is more than one niche within a given culture for people to fill. Thus, for very rational reasons,

* People are aware of and affected by many cultural codes that they do not endorse or affirm in their behavior; our attitude toward much of what we receive from the traditional and popular culture is ambivalent, skeptical, or actively rejecting. This has implications for the dialogue on Question #5 concerning how cultural codes can be validly measured. That is, if people do not make continual use of the cultural rules that surround them, then we cannot study cultural psychology—the role of culture in thoughts and behavior—simply by asking people what they personally believe (Bond's approach #3). At the same time, we cannot measure a culture simply by looking at the codes that are represented most frequently in publicly available texts (part of Bond's approach #1). Much of what appears frequently in canonical texts (e.g. the frequent affirmations of poverty in Christian scripture) may be empty cant, platitudes that are not taken seriously by adherents of the culture in conducting their behavior.

people find that it can be useful to deviate from what people in the main are doing. In a population of cooperators, some people find that it pays to take advantage of others' good will, and they become cheaters. In a population of cheaters, some people will find they can command a heavy premium by being trustworthy. In our own work, we have looked at positive and negative reciprocity. Environments where there are potentially very high risks for being preyed upon by others tend to produce a disproportionate amount of people who live by a code of Honor (being high on positive prosocial reciprocity but also high on negative, punitive reciprocity if crossed). However, in such environments, no behavioral strategy actually dominates any other in the sense of always being better. There are niches for not only Honorable people, but also for Trusting people (high positive reciprocity, low negative reciprocity), Vengeful people (low positive reciprocity, high negative reciprocity), and Passive people (low positive reciprocity, low negative reciprocity). The system works something like a game of "Rock-Paper-Scissors": the lack of a single dominating strategy means every strategy gets preserved and has its own niche in which it does well; however, some behavioral strategies are on average better than others. Ecologies have niches, markets have niches, and social systems have niches; people fill, find, and create their niches because it is advantageous to do so (Cohen, 2001; Dach-Gruschow & Cohen, 2008; Leung & Cohen, 2008).

Also, for very irrational reasons, people act in ways that go against common rules and values. They do this as a way of creating an identity, as Michael Morris notes above. This is a nice way to put a positive spin on it. But they also violate rules for reasons that can be spun more negatively: they violate norms out of spite. *Aftselakhis* is a Yiddish word, translated "very literally, 'in order to provoke anger,' [it is] the impulse to do things only because someone else doesn't want you to" (Wex, 2005, p. 2). We have seen this in our own work. People who find their personal beliefs in opposition to a salient cultural schema seem ready to go out of their way to behave badly—they cheat more, help other people less, and they do so *particularly when they have the greatest obligation to behave correctly*. They act most badly when situations most call for good behavior. Such people are not chronic malcontents. They behave or misbehave depending on whether one makes salient a cultural schema that they endorse or a cultural schema that they reject (Leung & Cohen, 2008).

In 1961, the sociologist Dennis Wrong wrote an article called, "The Oversocialized Conception of Man in Modern Sociology," in which he argued that modern sociology missed the way that humans are "social though never fully socialized" creatures (Wrong, 1961, p. 183). There is, of course, much truth to this. However, Wrong's analysis also misses two points. First, it is not just that humans are *undersocialized*, with civilization not fully able to quash the sources of our discontents. It is that humans sometimes know the rules of socialization quite well, but they actively, purposefully reject them *aftselakhis*. Second, sometimes being oppositional *is* the socialized response. That is, it is not just a matter of individuals being oppositional; whole cultures—or more properly, whole subcultures—can be built in opposition. One thinks of this with respect to subcultures that develop in reaction to hostility from the larger culture or with respect to less powerful societies reacting against the hegemony of more powerful societies. However, elite cultures can be oppositional as well, defining themselves by casting a contemptuous eye toward the mainstream. Snobbery is oppositional, because it is mostly about what one is *not*.

Spiteful behavior or an oppositional stance might be so-called "irrational" behavior because it appears self-defeating, with the person or group undermining themselves. But one has to specify: On what dimension is the behavior self-defeating and according to whose metric is this being measured? As Michael Morris has pointed out, such behavior may not be irrational at all. First, the costs and benefits of being oppositional have to be weighed against the costs and benefits of conformity to the mainstream. If the system is structured such that conformity to the mainstream does not actually buy that much, then one may not be giving up much at all in being oppositional. Second, as Morris points out, identity-cultivation can be quite rational, even if the rewards are not so tangible. How does one value staking out an identity? What is it worth to be able to preserve one's dignity in a world where one is devalued at worst and ignored at best (or perhaps, devalued at best and ignored at worst)? For an individual within an oppositional subculture, does one increase one's local status

or at least enhance one's sense of belonging, even at the cost of losing status in the mainstream? All status—like all politics—may be local. For discussion of such issues in relation to subcultures of opposition within African-American culture, see, for example, Anderson (1994), Ogbu (2003), and Fordham and Ogbu (1986); rebuttals by Ainsworth-Darnell and Downey (1998), Cook and Ludwig (1997), and Steinberg (1997), questioning whether an oppositional subculture does in fact exist (cf. Coleman, 2006); refinements and qualifications by Fryer (2006) and Oyserman, Brickman, Bybee, and Celious (2007); and work on disidentification and stereotype threat by Steele (1992, 1999). Of course, overstressing spite, discordancy, and within-culture differences in our research can be as much a mistake as overstressing uniformity, harmony, and unity. If there are people or groups who are oppositional or outside the mainstream, this implies that there is in fact a mainstream or mainstreams to be opposed to or outside of. The point here is not that there are no dominant tendencies within a culture, because there are. The point is rather that within-culture variability is not something that cultural psychologists need to be embarrassed about. It is not “measurement error,” and it is not *prima facie* evidence that culture effects are weak or unimportant.

For some phenomena, there may indeed be a massive “main effect” of culture. But for other phenomena, culture effects may turn out to be something like family effects. In the wake of Judith Rich Harris's (1999) work, some (mis)interpreted the research as indicating that the family environment has little effect on children's development. This is probably not true. The family environment can be having a massive effect; it is just that the effects are not uniform and the family environment affects different children differently. Similarly, within-culture variation is not necessarily a sign that culture effects are weak. Culture effects may indeed be massive, but the effects just may not be uniform across people. Both (a) environmental variables that affect the size of various niches and (b) the oppositional nature of people's reaction to culture illustrate this point. With respect to (a), the social-cultural environment (as well as the material environment) will affect the size of various niches and, hence, the frequency and distribution of various “personality types” or behavioral strategies in a social system. With respect to (b), the oppositional nature of people's behavior shows that such behavior is not in fact random variation. If one acts to reject common cultural ideals, norms, or values, one is being affected by those common ideals, norms, and values just as one is affected by those ideals if one conforms to them. In both cases, one is influenced by the common or dominant ideals; it is the *type* of influence that is different. One may not always be of a culture, but one is always *in* a culture and reacts toward or against the social and symbolic environments that it provides. It takes absolutely nothing away from the dignity of the individual and takes nothing away from acknowledging the power of culture to say that persons are always acting in, reacting toward, and interacting with their cultural environment.

Finally, it has been said that in science, one person's “error” is another person's topic of study. Within-culture variation is like that. It's not just error, and it is interesting to study in its own right for examining some of the more complex aspects of human personality and some of the more complex effects of culture.

5. CAN CULTURE BE VALIDLY MEASURED VIA SELF REPORTS?

MICHAEL HARRIS BOND

In 2001, I wrote about three approaches that could be taken to measuring groups, organizations, and cultures (Bond, 2001).

The first approach is extracting objective measures of the unit's eco-social characteristics, institutions, outputs, and so forth. This is the approach pioneered by Sawyer (1967) and refined recently by Georgas and Berry (1995). In this approach, each unit receives a single score, for example, its level of “affluence,” degree of freedom, extent of human rights observance. So, we are working at the unit level of analysis, and not at the individual level.

The second approach is asking a sample of members from the unit for ratings of the unit itself. This approach to representing a culture has become popular with recent publications by Chiu and colleagues, which note that “intersubjective cultural norms” are assessed from each participant, for example, Wan, Chiu, Peng, and Tam (2007). It is not just norms that can be assessed in this way, but values (Wan, Chiu, Tam, Lee, Lau, & Peng, 2007), beliefs (Kurman & Ronen-Eilon, 2004), and personality (McCrae et al., 2005), indeed, the panoply of explicit psychological measures.

This approach had earlier been prefigured in the scale developed by Bierbrauer, Meyer, and Wolfrat (1994) and later given its first cross-cultural application by Chen et al. (2006). Because measures are taken from each individual, we can work at the individual level of analysis, looking at theoretically intriguing problems, such as the respondent’s degree of cultural identification. This score can be calculated by subtracting the respondent’s self-rating from his or her rating of his or her cultural group.

Importantly for future work, the member’s ratings for their group may themselves be averaged. This procedure gives an “intersubjective” rating for the unit, a measure of social reality for that characteristic. This score can be used in a number of intriguing ways: the degree of intra-unit variability may be calculated, for example. This yields a unit-level score that may be linked to other characteristics of the nation, as Au (2000) has been doing. Presumably, values, beliefs, or personality traits that are more central to the unit would show less variability in their perception than would less crucial psychological features, but this perspective on pressures to uniformity has not yet been taken across units of study, like cultures.

Alternatively, each respondent may be scored for his or her degree of departure in perception from the unit’s consensus, a measure of each member’s accuracy in social perception. This difference score may be a measure of the person’s centrality or embeddedness in the social network of the unit.

The third approach is asking a sample of members from the unit for self-ratings on any psychological construct of interest, for example, his or her allocentrism, values, beliefs, political attitudes (Ashton et al., 2005). In a multi-unit study, one could assess representative samples from all the units involved in the study; see, for example, Hofstede’s work on nations (1980) or organizations (Hofstede et al., 1990). Scores from the individuals of a given unit may then be averaged, yielding a unit-level score representing that social entity, nation, state or province, city, organization, or group.

Alternatively, the individual scores may be retained and analyzed to discover whether the constructs underlying the scale items show metric equivalence across the members of the various units (van de Vijver & Leung, 1997). If so, then comparisons of construct scores may be made across the units *at the individual level*, using the standard techniques of statistical analysis familiar to psychologists, like ANOVA, multiple regression, hierarchical linear modeling, and so forth. Using this approach, Bond (1988) was able to compare value endorsement of two dimensions of value extracted from the Chinese Value Survey across members of 22 cultural groups and both sexes. This kind of comparison is not possible when social scientists remain at the level of social units rather than persons.

In 2001, I ventured no judgments on the validity of these three approaches to measuring culture; I simply catalogued them. Now, I do so—the only valid approach to measuring a *culture* is #1, assessing the culture as a system. The other two approaches involve measures taken from an individual who is a socialized product of his or her cultural system. This individual response is the result of the interplay between his or her genetic inheritance and the socializing influences of family, school, and workplace, themselves reflective of that individual’s cultural legacy (Hogan & Bond, *in press*). So, any measure taken from the individual, whether about the self, others, groups, institutions, nations, or cultures, is itself a cultural product; it is not the culture itself.

HARRY C. TRIANDIS

While I agree with most of what Bond is saying, I disagree that method #1 is “the only valid” one. Validity implies that there is some criterion. He could say it is the only one where “culture is the unit of analysis.” But even that would not be entirely correct, since nations include many cultures.

In my opinion, method #1 has produced most disappointing results. This is not the fault of Sawyer, Georgas or Berry but of the data that this method uses. The data were collected by economists and demographers who did not have psychology in mind. I tried to use the Georgas and Berry paper in my chapter (this volume), since it is directly relevant to my topic, but I could not get much traction. The results are too far removed from psychology.

In sum, the method has been disappointing, and as a result not influential. In the 2007 Kitayama and Cohen *Handbook of Cultural Psychology*, the Sawyer and Georgas-Berry papers are not even quoted.

CHI-YUE CHIU

I agree with Harry Triandis that the first approach cited in Bond's commentary may not be the only correct one. How we measure culture depends on how we define it. I treat culture as a *hypothetical construct* that scientists create to understand a set of cultural phenomena. Researchers may have different definitions of culture, depending on the cultural phenomena they are interested in, and so I do not claim that my definition is more correct or useful than the definitions offered by others. Indeed, my working definition of culture has changed over the years as I gain a better understanding of the cultural phenomena I study.

In my *current* work, I define culture as a loose network of ideas and practices that a collection of interdependent individuals construct to coordinate their goal-oriented activities under a set of physical and human-made constraints. Three defining features in this definition of culture are (1) sharedness (but not diffuse sharedness), (2) historicity, and (3) externalization. A set of ideas that is shared but does not have a history is like a fad. A set of ideas that has a history but is not widely shared is like the family tradition of a small family, and a set of ideas that lacks sharedness and historicity is like my definition of culture.

Culture is like the memory of the society, as Kluckhohn (1954) put it. For culture to be an effective coordination device, members of the society must share *and* expect others to share at least some important parts of the collective memory (see Mead, 1934, on this point). Also, the collective memory of a cultural tradition (e.g., Christianity) is externalized in (a) institutions (e.g., the Church), cultural legends and myths (the miracles), scriptures (the Holy Bible), customs (Midnight Mass on Christmas Eve), rituals (baptism), and cultural narratives (Acts of the Apostles); (b) the icons of the culture (the Crucifix); and (c) external memory devices (e.g., pictograms, books, audiotapes, videotapes, CDs, DVDs, or the Internet).

Thus, it is possible to gain some insights into a culture by analyzing the ideas encoded in the institutions, customs and rituals, as well as the contents of cultural discourses and narratives. It is also possible to study how the activation of cultural representations in the presence of various cultural icons and symbols influences emotions, thoughts, and behaviors. We can also learn something about a culture by examining the intersubjective cultural representations.

In short, the three different approaches to "measuring" culture in Bond's commentary tap different aspects of culture. In this sense, all three approaches are valid but limited.

SHALOM SCHWARTZ

Like C. Y. Chiu, but contrary to Bond, I think that the second and third approaches to "measuring" culture in Bond's commentary are legitimate ways to tap different aspects of culture. Individuals' self-reports of their own values or beliefs, averaged over the members of a cultural unit, are fruitful measures of latent cultural orientations. Intersubjective cultural representations are fruitful measures of "perceived" culture.

Mean national levels of value importance, like GNP per capita, are characteristics of societies, not of individuals. GNPpc aggregates individual productivity; mean values aggregate individual value priorities. Aggregated individual variables reflect the dynamics of social interaction and the organization of social units no less well than such structural variables as communication networks or such

global products as laws (Liska, 1990). The value priorities of individuals are dynamically interdependent. They reflect socialization and negotiation among groups and individuals in the course of interaction as well as socially mediated adaptation to the requirements and demands of societal institutions. Mean national value priorities are the product of this dynamic interdependence.

Contrary to Bond and Chiu, I think we stand to gain by seeing the first approach, which Bond now prefers, as measuring aspects of the social structure rather than of culture. When we speak of country level affluence, freedom, or extent of human rights as aspects of culture, we confuse structural characteristics of societies that influence and are influenced by culture with culture itself. For some who use Bond's first approach (e.g., Georgas & Berry, 1993), culture also includes such context variables as demographic characteristics of societies (birth rates, population density, family size) and their physical ecology (mountains or plains, temperature, rainfall). We need to distinguish culture from these context variables to develop the process models for enriching our understanding of culture that Shigehiro Oishi calls for in his comments on Question #3. By uncovering the reciprocal causal relationships of culture with social structural, demographic, and ecological variables, we can address the questions of "how" and "why" the cultures of various social units take the forms they do.

As Chiu notes, how we measure culture depends on how we define it. Like him, I view culture as a *hypothetical construct*. As discussed in my chapter, I do not treat culture as a psychological variable located in the mind or behavior of individuals, however. For me, the shared ideas and practices measured by psychologists who study culture are the manifestations of culture rather than culture itself. Culture is external to individuals and their psychological makeup. It refers to ideas, preferences, and understandings implicit in the way the social system is organized. These ideas, preferences, and understandings emerge and change over time as members of a society or group resolve the problems they jointly confront. The most central aspect of a group's culture is the value orientations that underlie and give a degree of coherence to the ways in which social institutions function.

As a hypothetical construct, culture is not directly observable. It is expressed in the press to which individuals are exposed by virtue of living in particular social systems. This cultural press refers to the primes that individuals encounter more or less frequently in their daily life, including primes built into the usages of their language. In sociological terms, this press refers to the expectations encountered more or less frequently when enacting roles in societal institutions. The frequency of particular primes, expectations, and taken-for-granted practices in a society express underlying normative value emphases that are the heart of the culture.

What does this definition of culture imply regarding measurement? As Chiu notes, analyzing the ideas encoded in a group's cultural products can provide some insight into its culture. But each of these (legends, laws, rituals, literature, sports, etc.) is usually the product of a particular subgroup or elite and often aimed a particular audience. So it can give a partial, somewhat biased view of the culture at best. If, as I view it, the implicit normative system is the most important core of culture, measuring the value priorities that underlie that system would be a good, perhaps the best, way to get a handle on the culture of a group.

The value priorities of individuals within a society are partly shaped by the encompassing culture. The implicit cultural value preferences affect the contingencies to which people must adapt in their daily lives. They help to determine the individual behaviors, attitudes, and value preferences that are likely to be viewed as more or less legitimate, to be encouraged or discouraged. People are socialized to take for granted the implicit values that find expression in the workings of societal institutions. Each individual experiences the press of culture in a unique way, of course. Individuals' unique experiences, personality, and genetic makeup give rise to individual differences in personal values within societies. These individual differences cause variation in the importance of different values across a cultural group. The aggregated, *average* importance of a value is independent of the individual differences, however. It reflects the impact of exposure to the culture of all individuals. Thus, the average group ratings of values can serve as manifest markers for the latent cultural value orientations.

If, as input to cross-national analyses, we use average responses of societal members to attitude, value, or belief items, the facets, factors, or dimensions that emerge will identify variables on which societies differ from one another. These variables may or may not be the same as the ones on which individual people differ. If culture is a characteristic of a collectivity, external to any individual, we can expect the dimensions appropriate for comparing cultures to differ from those appropriate for comparing individuals. To theorize about cultural dimensions requires us to think about the dynamics of societal or other collective functioning. Psychologists whose work—by my definition—focuses on the manifestations of culture need to extend their disciplinary canvas if they are to understand why the distributions of individual-level variables they study vary as they do across societies.

MICHELE GELFAND

I concur that culture can be validly measured with self-reports, yet we should also be developing *implicit measures* of culture, or subconscious differences in attitudes, values, beliefs, or norms. In contrast to self-reports, implicit measures of culture can be through nonexplicit means such as the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) or other unobtrusive methods. Like explicit measures, implicit measures can be assessed as a property of an individual, and can also be aggregated to the unit level to examine additive models of culture or dispersion models. Several examples of implicit measures of culture can be found in the literature, including implicit measures of information processing (Kitayama, Duffy, Kawamura, & Larsen, 2003), implicit measures of self-esteem (Kitayama & Karasawa, 1997), and implicit measures of motivation (Hofer, Chasiotis, & Campos, 2006).

Implicit measures have a number of distinct advantages. From a theoretical point of view, implicit measures are consistent with conceptualizations of culture as habitual (Triandis, 1972) and operating largely out of conscious awareness. In this respect, culture is seen as tacit knowledge rather than explicit knowledge (Kitayama & Uchida, 2005). From an empirical point of view, implicit measures are less prone to self-presentation effects and other biases that threaten validity and interpretations of cultural differences (Peng, Nisbett, & Wong, 1997). Implicit measures of culture, like explicit measures, however, will need to demonstrate validity, and standards for equivalence will need to be developed. As well, implicit measures need not be correlated with explicit measures, as has been shown in the extant social psychology literature, and thus cross-cultural research with implicit measures will need to develop theory regarding when such measures are expected to show convergence versus divergence. Nevertheless, as culture can be seen as “standard operating procedures” operating outside of conscious awareness, it is an opportune time to develop implicit measures to complement self-report measures of culture. I concur with many of my colleagues above that methodological diversity is critical to capturing the complex elephant of culture, that including objective measures, self-report measures, and implicit measures.

RICHARD W. BRISLIN

Here, I add my opinion that culture can be validly measured through self-reports. One useful approach is to suggest dilemmas to people, with differing solutions guided by their own culture and other cultures to which they have been exposed through travel, study abroad, overseas assignments, and the media. Take the example of a Nepalese businessperson who has had extensive international experience. The question is posed, “Will you take a good job in a city 2000 miles from your frail mother?” Respondents would have to weigh different options, one of them the quest for personal advancement to which they may have been exposed in their international business dealings, and the other the cultural guideline that they take care of their elderly parents. Or, “Would you accept the directive from your father that you marry the person of his choice?” Here, the person would have to consider the familiar tradition of arranged marriages and the

individualistic choice of one's own mate. People's reasons for their choices among alternatives such as these can be especially illuminating.

6. WHAT IS THE FUTURE OF CULTURAL PSYCHOLOGY? WHAT ARE THE NEW CHALLENGES AND FRONTIERS IN THE FIELD?

HARRY C. TRIANDIS

I believe that the future will be brilliant, because there are very many important topics that have hardly been touched so far. The most promising topic may well be the relationship between religion and social behavior. While there are some relevant publications (Atran, 2002, 2007; Atran & Norenzayan, 2004; Boyer, 1994, 2001; Dennett, 2006; Eckersley, 2007; Farazza, 2004; Geyer & Baumeister, 2005; Hansen & Norenzayan, 2006; Kirkpatrick, 2005; Newberg & Newberg, 2005; Norenzayan has several unpublished studies; Silberman, Higgins, & Dweck, 2005; Wallace, 1966), the relationship between religion and social behavior has not been examined in detail.

Another frontier is the relationship between dimensions of cultural variation and neurobiological phenomena. We can now stick participants who are high and low on a dimension of cultural variation into Magnetic Resonance machines and examine which parts of their brain are most active.

Still another frontier is the detailed examination of more dimensions of cultural variation, such as: cultures that emphasize equality versus inequality, where the laws are generated from holy books (e.g., *shariah* cultures such as Sudan) versus made by aristocrats versus by the people; masculine versus feminine cultures (Hofstede, 1980); ascription versus achievement cultures; cultures that emphasize the process versus the outcome of events, cultures high in particularism (where behavior depends on who the other is) versus universalism (where behavior follows general principles so it does not depend on who the other is); cooperative versus competitive cultures; cultures where people behave on the basis of an ideology versus pragmatism; cultures high in planning versus cultures that do things spontaneously; cultures that use time differently, including having a long time-perspective versus a short perspective; cultures where work is central (people live to work) versus where leisure is central (people work to have leisure); benevolent versus criminal cultures; aggressive versus peaceful cultures; cultures where people suppress negative emotions versus tell it as it is; cultures where people are especially helpful and supportive versus where they are distant and disregard the needs of others; cultures with much (e.g., Islam) versus little sex differentiation (e.g., Scandinavia); and cultures in which people are otherworldly versus cultures in which people emphasize the here and now. What are the antecedents of these various cultures? What are the implications for social behavior?

ARA NORENZAYAN

Cultural psychology is at a crossroads, and the future ought to be promising. The strengths of cultural psychology is its methodological pluralism (Cohen, 2007), its multidisciplinary base (see Question 3), and its aim to widen the demographic base of psychological data by including all the cultural diversity of humanity. While the field is flourishing, there are a number of challenges and blind spots.

One of the blind spots has to do with the choice of topics cultural psychologists study. Some of the most central aspects of human life are largely overlooked. With a few notable exceptions (e.g., Cohen & Rozin, 2001; Sanchez-Burks, 2002; Maidf & Graham, 2007 Norenzayan & Sherift, in press; Hansen & Norenzayan, 2006), religion and religious variation in psychology is underexplored. In this respect, there are two areas for cultural psychology to explore: psychological differences between religious and nonreligious (including atheist) people, and those between people immersed in the various religious cultural traditions that exist in the world today. As Harry Triandis points out, the world around us is furiously and deeply religious (e.g., Lester, 2001), yet cultural

psychology or psychology in general has dropped the ball on this important dimension of human minds and cultures. Religion's consequences for prosociality, violence, sacrifice, moral intuitions, political and social attitudes, and social identity cannot be overstated. Similarly, in every culture, we spend an inordinate amount of time relating to food—preparing, eating, avoiding, tabooing, thinking and feeling about it. The cultural context plays a crucial role in shaping eating behavior, a point that Paul Rozin has been making for a long time (e.g., Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999; see also Fessler, 2005). But this area of life is not well represented in research either and is wide open for investigation.

One of the challenges involves the examination of cultures outside of East Asia and Europe and North America (for an example of a research program on cognition in Native American groups in Central America and the U.S., see Atran et al., 2005). Broadening the range of cultures is important for at least two reasons. First, it facilitates understanding of certain psychological patterns that are highly elaborated in other cultures, but not well-represented in the samples that cultural psychologists, especially those in North America and East Asia, work with. To illustrate with one example, the Israeli psychologist Ariel Merari (personal communication) has said that when failed Palestinian suicide attackers are asked why they agreed to go on a suicide mission, the most common answer they give is that they felt humiliated. I bet that humiliation is not a culturally important emotion in North America, recognized but not experienced in any frequency or intensity. But it is extremely important in Middle Eastern cultures (and perhaps elsewhere).

A second reason is inclusion of more of the world's cultures allows greater opportunities to test specific hypothesis regarding the transmission mechanisms underlying cultural variation in psychology. For example, if the differences between East Asians and Westerners in analytic-holistic thinking are explainable in terms of degrees of self-construal (independence-interdependence), then other cultures where independence versus interdependence are prevalent should encourage analytic versus holistic processing, respectively. Kühnen, Hannover, and Roeder (2001) tested this hypothesis with participants in two individualistic cultures, the U.S. and Germany, and two collectivistic ones, Russia and Malaysia, and found results consistent with this hypothesis in the domain of perceptual processing. Zebian and Denny (2001) compared integrative thinking (similar to holistic thinking) in a group of European Canadians to an immigrant Middle Eastern group of varying degrees of Western education, and found that the Middle Eastern group was on average more integrative than the European Canadian group. Recently, I tested Canadian, Chinese, and Arabs in perceptual processing and deductive reasoning. Although Chinese as expected showed more holistic processing than Canadians, Arabs were even more holistic than the Chinese! Similarly, Henrich (personal communication) examined classification and perception among the Mapuche, an indigenous group of farmers in Southern Chile. Although the Mapuche have had little exposure to the cultural traditions of East Asia, their processing patterns were overwhelmingly holistic. Are the cultures of the non-Western world, regardless of their cultural exposure to East Asian traditions, predominantly holistic in their cognitive outlook?

Results like these invite more systematic investigation of the specific social and ecological variables that can account for such cultural variation, but this can be accomplished only if cultural psychologists broaden the diversity of their samples.

MICHELE GELFAND

In many ways, the fields of cultural and cross-cultural psychology are thriving. Compared to even a few decades ago, attention to culture across all domains of psychology (developmental, clinical, cognitive, social, organizational, and even neuropsychology) is dramatically increasing, artifacts of which can be seen in our journal space, in our psychological societies, and in our classrooms.

Yet while there is increased attention to culture across psychology, I see two fundamental challenges and associated opportunities for the future of the field. The first challenge is that we need to build a science that truly captures global voices and realities, a point consistent with Ara

Norenzayan's discussion above. In their book, *What to Study: Generating and Developing Research Questions*, Campbell, Daft, and Hulin (1982) aptly note that the research questions we ask are not necessarily the ones that we should be asking. Likewise, in our field, we need to critically assess whether the questions we ask reflect Western values and assumptions, which are then exported to other cultures. As many would agree, science is not value-free; it has its own culture and research questions that are deemed important and are affected by the historical and cultural context in which the science develops (Kuhn, 1962; Sampson, 1978). The fact that the science of culture and cultural psychology still remains largely dominated by scholars from Western and relatively wealthy societies suggests the potential for biases in the very questions we ask (and the questions that remain unasked).

For example, in a recent analysis, we found that 86 percent of first authors cited in Tsui, Nifadkar, and Ou's (2007) review of the cross-cultural organizational behavior literature were from Western countries, and 100 percent of first authors were from countries that had the highest Human Development Index (HDI) ratings (Gelfand, Leslie, & Fehr, 2008). In Gelfand et al. (in press) we discuss how many research questions, at least in the subfield of culture and organizational behavior, reflect the cultural model of the independent self, a postmaterialistic worldview, and a protestant ideology, which reinforce these very attributes of Western societies (Sampson, 1978). For example, the Western assumptions of independence and autonomy are at the basis of numerous research programs in cross-cultural organizational behavior which prioritize individuals and their abilities, the importance of choice and fit with the environment, and the pursuit of happiness. We discuss how the postmaterialist nature of Western society with its affluence and stability also affects the questions asked, with much research implicitly reflecting the priority of self-actualization needs, to the exclusion of research on poverty, historical animosities, and basic needs. We also discuss how the Western endorsement of a protestant relational ideology (Sanchez-Burks, 2005) results in research programs that ignore the role of religion and multiplex social ties, and instead focus on highly distinct boundaries between domains of life that are not necessarily found in non-Western contexts.

These are only a few examples of the ways in which Western values and socio-political realities affect the questions we ask. More generally, we need to be mindful that culture affects the development of any science, and the very questions we ask often reflect societal values, assumptions, and socio-political realities. In the spirit of Campbell et al. (1982), we need to continue to expand the global relevance of our inquiries and to ask the ever-important question "What questions should we be asking?" in cultural and cross-cultural psychology.

Another challenge is for the field to become more interdisciplinary. There is little doubt that many of the greatest scientific breakthroughs have been made through interdisciplinary research. From the mapping of the genome to understanding the global map of terrorism, complex problems benefit, if not require, multiple perspectives. Karl Popper (1963) perhaps best reflected this sentiment in noting that "We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline" (p. 88). Cross-cultural and cultural psychology are of course by their very nature interdisciplinary fields. Yet we need to more fully capitalize on the inherent diversity in the field and proactively seek to integrate other disciplines—anthropology, sociology, economics, linguistics, computer science, primatology, among others—as we develop in our second and third stages of research as Ara Norenzayan discusses in Question #3 above.

In a recent analysis of interdisciplinary perspectives on the topic of culture and conflict/negotiation, we detailed how different disciplines have a penchant for different research questions on this topic, different units of analysis, different ways in which culture is conceptualized, and different methodologies. All of these can result in interesting cross-disciplinary synergies and new breakthroughs (Imai & Gelfand, in press). We need to build bridges and bring other disciplines into our research programs, our editorial boards, and our societies. Realistically, interdisciplinary research will be at the same time fraught with cultural conflicts as scientific disciplines invariably have differences in worldviews, scientific language, and priorities that are entrenched in different

disciplinary paradigms. In this respect, interdisciplinary work will be both more rewarding but also much more difficult and time-consuming. Nevertheless, as Kwok Leung argues below, culture is a complex, multi-level, dynamic phenomenon, and it is only through our partnerships with other disciplines that we will fully capture the proverbial cultural elephant.

RICHARD W. BRISLIN

The future of cultural psychology is positive, but I recommend that its proponents make no more enemies than is absolutely necessary. At professional meetings, I have heard proponents of cultural psychology and advocates of cross-cultural psychology argue with each other in a loud, unpleasant, and disrespectful manner. There are only so many social and behavioral scientists who are able to study culture in a sophisticated, intellectually rigorous manner. Researchers who know about culture make poor choices in their use of time and energy when they are overly critical of others who do not happen to share the exact approach to studying the effects of culture on human behavior. Here are two questions that I consider constructive and helpful, both of them recognizing strengths of the cultural psychology and the cross-cultural psychology approaches. Cultural psychologists can ask cross-cultural psychologists, "Have you taken into account the social context in which behavior occurs in your comparison of data across cultures?" Cross-cultural psychologists can ask cultural psychologists, "Are there any concepts you have been studying that will lead to theoretical developments that account for (a) behavior in the specific culture in which you have been working and (b) behavior in other cultures that have been studied by other researchers?" I believe that answers to questions such as these, both of which are not "softballs" but rather are difficult questions demanding careful thought, will lead to helpful dialogues that will increase our understanding of the influences of culture on behavior.

7. SHOULD CULTURAL PSYCHOLOGY STRIVE TO ELIMINATE CULTURE AS AN EXPLANATORY VARIABLE?

ARTHUR B. MARKMAN

Cultural psychology can explore the relationship between culture and mind in both directions. That is, research can examine the cognitive and motivational influences of the culture (or cultures) to which a person belongs. Research can also focus on how individual and social processes make certain aspects of culture stable and others unstable. The first of these approaches looks at how culture shapes mind, and the second at how mind shapes culture. In this commentary, I am focusing on the first of these aims. I argue that research on the influence of culture on cognition and motivation should seek to create explanations that do not refer explicitly to culture as a variable. At the outset, though, I want to make clear that one may choose to explore psychological influences on culture, in which case culture is the object of study, and thus is clearly central to the research.

Culture affects behavior in a number of ways. There are habitual modes of communication affected both by the language spoken by members of a culture as well as by accepted methods of communicating with others. Cultures create expectations about how people will interact with others and support them. Cultures define life tasks and success. Cultures define moral obligations of cultural members and acceptable relationships between individuals.

The crucial questions for the cultural psychologist, however, focus on how aspects of culture affect basic psychological variables. Cultural psychology is still a fairly new subdiscipline. Many studies in this area take familiar cognitive, motivational, and personality tasks and run them on members of different cultures. (Much of this research uses country-of-origin as a stand-in for culture.) The studies focus primarily in finding cultural differences in behavior and beliefs. Explanations for these differences often appeal to broad aspects of cultural differences such as differences along the

individualism/collectivism dimension or tightness/looseness. These variables are aspects of culture that are assumed to influence behavior.

Presumably, however, culture affects basic psychological processes. Ultimately, it is crucial for our research to shift from explaining differences in behavior on the basis of differences in cultural variables to explaining differences in behavior on the basis of psychological variables. For example, studies have demonstrated that, on average, there are cultural differences in the degree to which people exhibit an independent or an interdependent self-construal. There are also cultural differences in levels of fear of isolation. These differences are also correlated with performance on other cognitive and perceptual tasks.

Some of these variables may be ones that can be influenced online in ways that allow the behavior of members of one culture to resemble the behavior of members of another culture. For example, studies of self-construal and fear of isolation have demonstrated that manipulating these variables within a group of people from one culture can lead to performance that resembles that of people from other cultures. Not all influences of culture will support this malleability, however. For example, the language that someone speaks has deep and pervasive influences on cognition and motivation that have a long developmental history. There are unlikely to be simple manipulations that can undo deeply rooted cultural differences like this.

Identifying these intermediate psychological variables then creates two new opportunities. First, research can explore how these individual differences affect other psychological tasks. Second, research must examine how culture comes to create stable between-culture differences in these variables. On this view, then, culture affects a variety of psychological variables, but it is not ultimately part of the psychological explanation of people's behavior.

So, the job of a cultural psychologist embodies a paradox. Our interest in culture leads us to explore the ways that culture affects behavior. Cultural psychology enriches our understanding of individual differences in behavior both within and across cultures. Ultimately, though, this interest in culture will also lead us to eliminate culture as a causal variable in our explanations of these cultural differences.

KWOK LEUNG

Culture is a multi-level phenomenon. Culture does exist in our head, and we psychologists have probed the manifestations of culture as individual-level, intra-psychic processes for decades. At this level of analysis, it is possible that as our field advances, we will be able to replace culture by some psychological constructs, such as values, norms, and mental processes in many domains of research. The notion of "unpackaging" the influence of culture has been around for decades, and the key idea is to identify a cultural element that is responsible for an observed cultural difference. For instance, a very common argument to explain cultural differences is that different cultural groups exhibit different behaviors because these groups hold different values and regard different goals as important. In this argument, culture is in essence replaced by values.

Unfortunately or fortunately, depending on your disciplinary affiliation, culture is also a collective phenomenon, characterized by the kind of social institutions it has and its ecological context. For instance, people are likely to be more litigious if they are in a society which allows lawyers to charge contingent fees for their service. I think there are limits for psychological processes to provide a full account of some cultural differences, because some social institutional and ecological effects on human behavior are quite independent of the effects associated with psychological processes (e.g., Leung & Bond, 2008). As an illustration, van de Vliert has led an interesting research program to explore the joint effects of temperature and affluence on a variety of social behavior across many societies (e.g., van de Vliert, Huang, & Parker, 2004). It is perhaps more productive to

assume that psychological processes do not constitute a complete explanation of cultural variations unless negated by the empirical evidence available.

YING-YI HONG

Although I agree with Markman that cultural psychology enriches our understanding of individual differences in behavior both within and across cultures, I disagree with him that this investigation “will also lead us to eliminate culture as a causal variable in our explanations of these cultural differences.” I believe that *culture as a causal variable* will live long and prosper. Part of my optimism stems from the multi-level and multi-faceted nature of *culture*, which is well demonstrated in the diverse theories and methods included in this volume. Authors who contribute to this volume have defined culture in many different ways, ranging from culture as an interpretative construct (e.g., Kashima) to shared representations (e.g., Hong; Wan & Chiu), syndromes (Oyserman & Sorenson) and social systems and institutions (e.g., Leung in the dialogue above). Each definition focuses on a different level and facet of culture. Importantly, I would argue that the definitions that are at the individual level are easier to be operationalized in an experiment and therefore are more amenable to our traditional ways of “causal testing” than definitions that are at the societal or macro-levels. This could be a limitation of our methods rather than that of the construct of culture itself.

How could we overcome this limitation? Different researchers have different answers. To use my own research as an example, I focus mainly on individuals’ cognition and rely mostly on our traditional ways of causal testing as well. However, I do not ignore the macro-level facets of culture. Instead, I focus on individuals’ representations of culture. That is, I rely on individuals as “filters” and “memory devices” of the macro-level aspects of culture (traditions, history, social systems, and institutions) as well as other shared knowledge associated with the culture (e.g., group versus individual agency). Through presenting participants with cultural icons and symbols, I can test the causal consequences of activating the shared representation (see Hong, this volume). In other words, borrowing Kashima’s (this volume) terms, what is activated are the distributed representations of specific memories of some joint activities within the group. Arguably, cultural symbols and icons embody shared experience and provide common tools for sense-making. As such, my approach allows me to test how culture operates beyond the individual to some extent. Yet, I also acknowledge that no one approach or one method can provide all the answers.

Both Leung and Gelfand (this volume, in the dialogue) have advocated for interdisciplinary research, which is an important way to overcome the limits of our own disciplinary approach. The critical issue facing cultural and cross-cultural psychology is not whether we will eliminate culture as an explanation, but how we can connect and start productive exchanges and collaborations with colleagues outside our disciplines. This is often easier said than done. For instance, the contested views of cultures as universal orientations rather than cultural meanings have created tension between cross-cultural psychologists and anthropologists. To ensure our discipline will live long and prosper, interdisciplinary research seems to be indispensable. Cases in point: Ng and Han’s (this volume) work on culture and neuroscience, and Kashima and colleagues’ computer simulation of the dropping of pronouns across cultures (Kashima, Gurumurthy, Ouschan, Chong, & Mattingley, 2007). These examples make me feel optimistic that we are up to the challenge.

REFERENCES

- Ainsworth-Darnell, J. & Downey, D. (1998). Assessing the oppositional culture explanation for racial/ethnic differences in school performance. *American Sociological Review*, 63, 536–553.
- Allen, M., Ng, S.H., Ikeda, K., Jawan, J.A., Sufi, A.H., Waninara, W., et al. (2007). Two decades of cultural value change and economic development in eight East Asian and Pacific Island nations. *Journal of Cross-Cultural Psychology*, 38, 247–269.

- Allik, J., & McCrae, R. R. (2004). Toward a geography of personality traits: Patterns of profiles across 36 cultures. *Journal of Cross-Cultural Psychology*, 34, 13–28.
- Anderson, E. (1994, May). Code of the streets. *Atlantic Monthly*, 5, 81–94.
- Arnett, J. J. (2002). The psychology of globalization. *American Psychologist*, 57, 774–783.
- Ashton, M. C., Danso, H. A., Maio, G., Esses, V. M., Bond, M. H., & Keung, D. (2005). Two dimensions of political attitudes and their individual difference correlates: A cross-cultural perspective. In R. M. Sorrentino, D. Cohen, J. M. Olsen, & M. P. Zanna (Eds.), *Culture and social behavior*, Volume 10 (pp. 1–30). Mahwah, NJ: Lawrence Erlbaum Associates.
- Atran, S. (2002). *In Gods we trust: The evolutionary landscape of religion*. Oxford, UK: Oxford University Press.
- Atran, S. (2007). Religion's social and cognitive landscape: An evolutionary perspective. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 417–453). New York: The Guilford Press.
- Atran, S., Medin, D. L., & Ross, N. O. (2005). The cultural mind: Environmental decision making and cultural modeling within and across populations. *Psychological Review*, 112, 744–776.
- Atran, S., & Norenzayan, A. (2004). Religion's evolutionary landscape: Counterintuition, commitment, compassion, communion. *Behavioral & Brain Sciences*, 27, 713–770.
- Au, K. (2000). Intra-cultural variation as another construct of international management: A study based on secondary data of 42 countries. *Journal of International Management*, 6, 217–238.
- Au, K., & Cheung, M. W. L. (2002). Consequences of intra-cultural variation: An exploratory study of job autonomy in 42 countries. In P. Boski, F. van de Vijver, & A. M. Chodynicka (Eds.), *New directions in cross-cultural psychology* (pp. 261–277). Warsaw, Poland: Polish Academy of Sciences.
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame-switching in biculturals with “oppositional” vs. “compatible” cultural identities. *Journal of Cross-Cultural Psychology*, 33, 492–516.
- Bierbrauer, G., Meyer, H., & Wolfradt, U. (1994). Measurement of normative and evaluative aspects in individualistic and collectivistic orientations: The cultural orientation scale (COS). In U. Kim, H. C. Triandis, Ç. Kağıtçıbaşı, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 189–199). Thousand Oaks, CA: Sage.
- Bond, M. H. (1988). Finding universal dimensions of individual variation in multicultural studies of value. *Journal of Personality and Social Psychology*, 55, 1009–1015.
- Bond, M. H. (1997). Preface: The psychology of working at the interface of cultures. In M. H. Bond (Ed.), *Working at the interface of cultures: 18 lives in social science* (pp. xi–xix). London: Routledge.
- Bond, M. H. (2001). Surveying the foundations: Approaches to measuring group, organizational, and national variation. In M. Erez, U. Kleinbeck, & H. Thierry (Eds.), *Work motivation in the context of a globalizing economy* (pp. 395–412). Mahwah, NJ: Lawrence Erlbaum.
- Bond, M. H. & Ng, I. W. C. (2004). The depth of a group's personality resources: Impacts on group process and group performance. *Asian Journal of Social Psychology*, 7, 285–300.
- Bond, M. H. & Yang, K. S. (1982). Ethnic affirmation versus cross-cultural accommodation: The variable impact of questionnaire language on Chinese bilinguals from Hong Kong. *Journal of Cross-Cultural Psychology*, 12, 169–185.
- Boyer, P. (1994). *The naturalness of religious ideals*. Berkeley: University of California Press.
- Boyer, P. (2001). *Religion explained: The evolutionary origins of religious thought*. New York: Basic Books.
- Briley, D., Morris, M. W., & Simonson, I. (2005). Cultural chameleons: Biculturals, conformity motives, and decision making. *Journal of Consumer Psychology*, 15(4), 351–362.
- Briley, D. A., & Wyer, R. S. (2001). Transitory determinants of values and decisions: The utility (or nonutility) of individualism and collectivism in understanding cultural differences. *Social Cognition*, 19, 197–227.
- Campbell, J. P., Daft, R. L., & Hulin, C. L. (1982). *What to study: Generating and developing research questions*. Beverly Hills, CA: Sage.
- Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83, 234–246.
- Chen, S. X. H., & Bond, M. H. (2007). Explaining language priming effects: Further evidence for ethnic affirmation among Chinese-English bilinguals. *Journal of Language and Social Psychology*, 26(4), 398–406.
- Chen, S. X. H., Hui, N. H. H., Bond, M. H., Sit, A. Y. F., Wong, S., Chow, V. S. Y., et al. (2006). Reexamining personal, social and cultural influences on compliance behavior in the United States, Poland, and Hong Kong. *Journal of Social Psychology*, 146, 223–246.

- Chiu, C.-y., Morris, M. W., Hong, Y.-y., & Menon, T. (2000). Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need for closure. *Journal of Personality and Social Psychology, 78*(2), 247–259.
- Chua, R., Morris, M. W., & Ingram, P. (2008). Networks, guanxi, and trust: Affect and cognitive trust are more intertwined for Chinese than American managers. *Journal of International Business, 40*, 1–20.
- Chua, R., Ingram, P. & Morris, M. W. (2008). From the head and the heart: Locating cognition- and affect-based trust in managers' professional networks. *Academy of Management Journal, 51*(3), 436–452.
- Cohen, A. B., & Rozin, P. (2001). Religion and the morality of mentality. *Journal of Personality and Social Psychology, 81*, 697–710.
- Cohen, D. (2001). Cultural variation: Considerations and implications. *Psychological Bulletin, 127*, 451–471.
- Cohen, D. (2007). Methods in cultural psychology. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 196–236). New York: Guilford.
- Coleman, J. (2006, Winter). The adolescent society: James Coleman's still prescient insights. *Education Next, 6*, 40–43.
- Cook, P., & Ludwig, J. (1997). Weighing the “burden of ‘acting white’”: Are there race differences in attitudes toward education? *Journal of Policy Analysis and Management, 16*, 256–278.
- Dach-Gruscow, K., & Cohen, D. (2008). *Niches, within-culture variation, and personality*. Unpublished manuscript: University of Illinois.
- Dennett, D. C. (2006). *Breaking the spell: religion as a natural phenomenon*. New York: Viking.
- Diener, E., & Suh, E. M. (2000) (Eds.). *Culture and subjective well-being*. Cambridge, MA: MIT Press.
- DiMaggio, P. J., & Powell, W. W. (1991). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. In W. W. Powell and P. J. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 63–82). Chicago: University of Chicago Press.
- Durkheim, E. (1951/1897). *Suicide*. New York: Free Press.
- Eckersley, R. (2007). Culture, spirituality, religion and health: Looking at the big picture. *Medical Journal of Australia, 186*, 54–56.
- Emirbayer, M., & Goodwin, J. (1994). Network analysis, culture, and the problem of agency. *American Journal of Sociology, 99* (6): 1411–1454.
- Farazza, A. (2004). *PsychoBible: Behavior, religion, and the Holy Book*. Charlottesville, VA: Pitchstone.
- Fessler, D. M. T. (2005). Never eat alone: The meaning of food sharing in a Sumatran fishing village. *People and Culture in Oceania 20*: 51–67.
- Fessler, D. M. T. (2006). Steps toward the evolutionary psychology of a culture-dependent species. In P. Carruthers, S. Laurence & S. Stich, (Eds.), *Innateness and the Structure of the Mind, Vol. II*, pp. 91–117. Oxford, UK: Oxford University Press.
- Fischer, C. S., & Shavit, Y. (1995). National differences in network density: Israel and the United States. *Social Network, 17*, 129–145.
- Fordham, S., & Ogbu, J. (1986). Black students' school success: Coping with the burden of “acting white.” *Urban Review, 18*, 176–206.
- Fryer, R. (2006, Winter). “Acting white.” *Education Next, 6*, 53–59.
- Fu, H.-y., Morris, M. W., Lee, S.-l., Chao, M., Chiu, C.-y., & Hong, Y.-y. (2007). Epistemic motives and cultural conformity: Need for closure, culture, and context as determinants of conflict judgments. *Journal of Personality and Social Psychology, 92*(2), 191–207.
- Geertz, C. (1973). Religion as a cultural system. In *Interpretation of cultures* (pp. 87–125). New York: Basic Books.
- Gelfand, M. J. (2006). *Culture and social situations: A multilevel analysis of situational constraint*. Paper presented at the Hong Kong on Cultural Influences on Behavior Conference, December 2007.
- Gelfand, M. J., Leslie, L., & Fehr, R. (2008). In order to prosper, organizational psychology should adopt a global perspective. *Journal of Organizational Behavior, 29*, 493–517.
- Gelfand, M. J., Nishii, L., and Raver, J. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology, 91*, 1225–1244.
- Georgas, J., & Berry, J. W. (1995). An ecocultural taxonomy for cross-cultural psychology. *Cross-Cultural Research, 29*, 121–57.
- Geyer, A., & Baumeister, R. (2005). Religion, morality, and self-control: values, virtues, and vice. In R. F. Paloutzian & C. L. Park (Eds.). *Handbook of the psychology of religion and spirituality* (pp. 412–432). New York: Guilford.
- Goffman, E. (1963). *Behavior in public places: Notes on the social organization of gatherings*. Westport, CT: Greenwood Press.

- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist*, 48, 26–34.
- Greenberg, J., Pyszczynski, T., Solomon, S., Simon, L., & Breus, M. J. (1994). Role of consciousness and accessibility of death-related thoughts in mortality salience effects. *Journal of Personality and Social Psychology*, 67, 627–637.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464–1480.
- Grondona, M. (2000). A cultural typology of economic development. In L. Harrison & S. Huntington (Eds.), *Culture matters: How values shape human progress* (pp. 44–64). New York: Basic Books.
- Halloran, M. J., & Kashima, E. S. (2004). Social identity and worldview validation: The effects of in-group identity primes and mortality salience on value endorsement. *Personality and Social Psychology Bulletin*, 30, 915–925.
- Hansen, I., & Norenzayan, A. (2006). Yang and ying and heaven and hell: Untangling the complex relationship between religion and intolerance. In P. McNemara (Ed.), *Where God and mind meet: How the brain and evolutionary science are revolutionizing religion and spirituality*. Praeger Publishers.
- Harris, J. (1999). *The nurture assumption*. New York: Free Press.
- Harrison, L. E., & Huntington, S. P. (2000). *Culture matters: How values shape human progress*. New York: Basic Books.
- Harrison, L. E., & Kagan, J. (Eds.). (2006). *Developing cultures: Essays in culture change*. New York: Routledge.
- Harvey, J. H., Yarkin, K. L., Lightner, J. M., & Town, J. P. (1980). Unsolicited interpretation and recall of interpersonal events. *Journal of Personality and Social Psychology*, 38, 551–568.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, 106, 766–794.
- Heine, S. J., & Norenzayan, A. (2006). Toward a psychological science for a cultural species. *Perspectives on Psychological Science*, 1, 251–269.
- Hempel, C. (1965). *Aspects of scientific explanation and other essays in the philosophy of science*. New York: Free Press.
- Henrich, J., Boyd, R., Bowles, S., Gintis, H., Fehr, E., Camerer, C., et al. (2005). “Economic man” in cross-cultural perspective: Ethnography and experiments from 15 small-scale societies. *Behavioral and Brain Sciences*, 28, 795–855.
- Ho, D. Y. F. (1998). Interpersonal relationships and relationship dominance: An analysis based on methodological relationism. *Asian Journal of Social Psychology*, 1, 1–16.
- Hofer, J., Chasiotis, A., & Campos, D. (2006). Congruence between social values and implicit motives: Effects on life satisfaction across three cultures. *European Journal of Personality*, 20, 305–324.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G., Bond, M. H., & Luk, C. L. (1993). Individual perceptions of organizational cultures: A methodological treatise on levels of analysis. *Organizational Studies*, 14, 483–503.
- Hofstede, G., Neuyen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across 20 cases. *Administrative Science Quarterly*, 35, 286–315.
- Hogan, R., & Bond, M. H. (in press). Culture and personality. In P. Corr & G. Matthews (Eds.), *The Cambridge handbook of personality*. Cambridge, UK: Cambridge University Press.
- Hong, Y.-y., & Chiu, C.-y. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, 19, 181–196.
- Hong, Y.-y., Morris, M. W., Chiu, C.-y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Imai, L., & Gelfand, M.J. (in press). Culture and negotiation: Interdisciplinary perspectives. In R.S. Bhagat & R.M. Steers (Eds.), *Handbook of culture, organizations, and work*. Cambridge, UK: Cambridge University Press.
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton, NJ: Princeton University Press.
- Inglehart, R. (2000). Culture and democracy. In L. Harrison & S. Huntington (Eds.), *Culture matters: How values shape human progress* (pp. 80–97). New York: Basic Books.
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review*, 65, 19–51.
- Inkeles, A. (1960). Industrial man: The relation of status to experience, perception, and value. *American Journal of Sociology*, 66, 1–31.

- Inkeles, A. (1978). National differences in individual modernity. *Comparative Studies in Sociology*, 1, 47–72.
- Kam, C. C. S., & Bond, M. H. (2007). *Emotional reactions of anger and shame to the norm violation characterizing episode of interpersonal harm: The case of Americans and Hong Kong Chinese*. Manuscript submitted for publication.
- Kam, C. C. S., & Bond, M. H. (2008). The role of emotions and behavioral responses in mediating the impact of face loss on relationship deterioration: Are Chinese more face-sensitive than Americans? *Asian Journal of Social Psychology*, 11, 175–184.
- Kashima, Y., Gurumurthy, A. K., Ouschan, L., Chong, T., & Mattingley, J. (2007). Connectionism and self: James, Mead, and the stream of enculturated consciousness. *Psychological Inquiry*, 18, 73–96.
- Kirpatrick, L. A (2005). *Attachment, evolution, and the psychology of religion*. New York: Guilford.
- Kitayama, S., & Cohen, D. (Eds.). (2007). *Handbook of cultural psychology*. New York: Guilford.
- Kitayama, S., Duffy, S., Kawamura, T., & Larsen, J. T. (2003). Perceiving an object and its context in different cultures: A cultural look at New Look. *Psychological Science*, 14, 201–206.
- Kitayama, S., Ishii, K., Imada, T., Takemura, K., & Ramaswamy, J. (2006). Voluntary settlement and the spirit of independence: Evidence from Japan's "northern frontier." *Journal of Personality and Social Psychology*, 91, 369–384.
- Kitayama, S., & Karasawa, M. (1997). Implicit self-esteem in Japan: Name letters and birthday numbers. *Personality and Social Psychology Bulletin*, 23, 736–742.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, 72, 1245–1267.
- Kitayama, S., & Uchida, Y. (2005). Interdependent agency: An alternative system for action. In R. M. Sorrentino, D. Cohen, J. M. Olson, & M. P. Zanna (Eds.), *Cultural and social behavior: The Ontario symposium* (Vol. 10, pp. 137–164). Mahwah, NJ: Lawrence Erlbaum Associates.
- Klein, K. J., Dansereau, F., & Hall, R. J. (1994). Levels issues in theory development, data collection, and analysis. *Academy of Management Review*, 19, 195–229.
- Kluckhohn, C. (1954). Culture and behavior. In G. Lindzey (Ed.), *Handbook of social psychology* (Vol. 2, pp. 821–876). Cambridge, MA: Addison-Wesley.
- Kohn, M. L., Naoi, A., Schoenbach, C., Schooler, C., & Slomczynski, K. M. (1990). Position in the class structure and psychological functioning in the United States, Japan and Poland. *American Journal of Sociology*, 95, 964–1008.
- Konishi, M. (1994). *Kotoriha naze utauno ka* (Why do singing birds sing? In Japanese). Tokyo: Iwanami Shoten.
- Konner, M. (2007). The evolutionary foundations of cultural psychology. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 77–105). New York: Guilford.
- Kosic, A., Kruglanski, A. W., Pierro, A., & Mannetti, L. (2004). The social cognition of immigrants' acculturation: Effects of the need for closure and the reference group at entry. *Journal of Personality and Social Psychology*, 86, 796–813.
- Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations* (pp. 3–90). San Francisco: Josey-Bass.
- Kruglanski, A. W., Peirro, A., Mannetti, L., & De Grada, E. (2006). Groups as epistemic providers: Need for closure and the unfolding of group-centrism. *Psychological Review*, 113, 84–100.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kühnen, U., Hannover, B., & Roeder, U. (2001). Cross-cultural variations in identifying embedded figures: Comparisons from the United States, Germany, Russia, and Malaysia. *Journal of Cross-Cultural Psychology*, 32, 365–371.
- Kühnen, U., Hannover, B., & Schubert, B. (2001). The semantic-procedural interface model of the self: The role of self-knowledge for context-dependent versus context-independent modes of thinking. *Journal of Personality and Social Psychology*, 80, 397–409.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38, 492–499.
- Kurman, J., & Ronen-Eilon, C. (2004). Lack of knowledge of a culture's social axioms and adaptation difficulties among immigrants. *Journal of Cross-Cultural Psychology*, 35, 192–208.
- Lester, T. (2001, February). Oh, Gods! *Atlantic Monthly*, 289, 37–45.
- Leung, A. K-y. & Cohen, D. (2008). *Within- and between-culture variation: Individual differences and the cultural logics of honor, face, and dignity cultures*. Unpublished manuscript, University of Illinois.

- Leung, K., & Bond, M. H. (2008). Psycho-logic and eco-logic: Insights from social axiom dimensions. In F. van de Vijver, D. van Hemert, & Y. P. Poortinga (Eds.), *Individuals and cultures in multilevel analysis* (pp. 197–219). Mahwah, NJ: Lawrence Erlbaum Associates.
- LeVine, R. (2007). Anthropological foundations of cultural psychology. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 40–58). New York: Guilford.
- Lipset, S. M., & Lenz, G. S. (2000). Corruption, culture and markets. In L. Harrison & S. Huntington (Eds.), *Culture matters: How values shape human progress* (pp. 112–125). New York: Basic Books.
- Liska, A. E. (1990). The significance of aggregates for testing and conceptually linking macro and micro theories. *Social Psychology Quarterly*, 53, 292–301.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Marx, K. (1972) [1844]. Economic and philosophical manuscripts of 1844. In R. C. Tucker (Ed.), *The Marx-Engel Reader*, 53–103. New York: Norton.
- McAuley, P., Bond, M. H., & Kashima, E. (2002). Towards defining situations objectively: A culture-level analysis of role dyads in Hong Kong and Australia. *Journal of Cross-Cultural Psychology*, 33, 363–380.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- McCrae, R. R., Terracciano, A., & Members of the Personality Profiles of Cultures Project (2005). Universal features of personality traits from the observer's perspective: Data from 50 cultures. *Journal of Personality and Social Psychology*, 88, 547–561.
- Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.
- Menon, T., & Morris, M. W. (2001). Social structure in North American and Chinese cultures: Reciprocal influence between objective and subjective structures. *Journal of Psychology in Chinese Societies*, 2, 27–50.
- Mischel, W. (1977). The interaction of person and situation. In E. Magnusson & N.S. Endler (Eds.), *Personality at the crossroads*. Hillsdale, NJ: Erlbaum.
- Mok, A., Morris, M. W., Benet-Martínez, V., & Karakitapoglu-Aygün, Z. (2007). Embracing American culture: Structures of social identity and social networks among first-generation biculturalists. *Journal of Cross-Cultural Psychology*, 38, 629–635.
- Morris, M. W. (2007). On blaming for Columbine. *Current Anthropology*, 48(6), 824–825.
- Morris, M. W., & Chua, R. (2008). *Structure, norms, and obligation: Indirect reciprocity and renqin in American and Chinese networks*. Unpublished manuscript, Columbia Business School.
- Morris, M. W., Podolny, J., & Ariel, S. (2000a). Missing relations: Incorporating relational constructs into models of culture. In P. C. Earley & H. Singh (Eds.), *Innovations in international and cross cultural management* (pp. 52–90). Thousand Oaks, CA: Sage Publications.
- Morris, M. W., Podolny, J., & Ariel, S. (2000b). Culture, norms, and obligation: A cross-national study of the determinants of interpersonal obligation at the workplace. In W. Wosinska, R.B. Cialdini, D. W. Barrett, & J. Reykowski (Eds.), *The practice of social influence in multiple cultures*. Mahwah, NJ: Erlbaum.
- Morris, M. W., Podolny, J., & Sullivan, B. N. (2008). Culture and co-worker relations: Patterns of interpersonal interaction in American, Chinese, German, and Spanish divisions of a global retail bank. *Organization Science*, 19, 517–532.
- Newberg, A. B. & Newberg, S. K. (2005). The neuropsychology of religion and spiritual experience. In R. F. Paloutzian, & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 199–215). New York: Guilford.
- Newcomb, T. M., Koenig, K. E., Flacks, R., & Warwick, D. P. (1967). *Persistence and change: Bennington College and its students after twenty-five years*. New York: Wiley.
- Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently ... and why*. New York: Free Press.
- Nisbett, R. E., & Cohen, D. (1996). *Culture of honor: The psychology of violence in the South*. Boulder, CO: Westview Press.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic vs. analytic cognition. *Psychological Review*, 108, 291–310.
- Norenzayan, A. (2006). Evolution and transmitted culture. *Psychological Inquiry*, 17, 123–128.
- Norenzayan, A., & Heine, S. J. (2005). Psychological universals: What are they and how can we know? *Psychological Bulletin*, 135, 763–784.
- Norenzayan, A., Schaller, M., & Heine, S. (2006). Evolution and culture. In M. Schaller, J. Simpson, & D. Kenrick (Eds.), *Evolution and Social Psychology* (pp. 343–366). New York: Psychology Press.
- Ogbu, J. (2003). *Black American students in an affluent suburb*. Mahwah, NJ: Erlbaum.

- Oishi, S., Lun, J., & Sherman, G. D. (2007). Residential mobility, self-concept, and positive affect in social interactions. *Journal of Personality and Social Psychology*, 93, 131–141.
- Oishi, S., Rothman, A. J., Snyder, M., Su, J., Zehm, K., Hertel, A. W., et al. (2007). The socio-ecological model of pro-community action: The benefits of residential stability. *Journal of Personality and Social Psychology*, 93, 831–844.
- Oyserman, D., Brickman, D., Bybee, D., & Celious, A. (2007). Fitting in matters: Markers of in-group belonging and academic outcomes. *Psychological Science*, 17, 854–861.
- Peng, K., Nisbett, R. E., & Wong, N. Y. C. (1997). Validity problems comparing values across cultures and possible solutions. *Psychological Methods*, 2, 329–344.
- Popper, K. R. (1963). *Conjectures and refutations: The growth of scientific knowledge*. New York: Routledge and Kegan Paul.
- Putnam, R. (1993) *Making democracy work*. Princeton, NJ: Princeton University Press.
- Richerson, P., & Boyd, R. (2005). *Not by genes alone: How culture transformed human evolution*. Chicago: University of Chicago Press.
- Rozin, P. (2001). Social psychology and science: Some lessons from Solomon Asch. *Personality and Social Psychology Review*, 5, 2–14.
- Rozin, P., Fischler, C., Imada, S., Sarubin, A., & Wrzesniewski, A. (1999). Attitudes to food and the role of food in life: Comparisons of Flemish Belgium, France, Japan and the United States. *Appetite*, 33, 163–180.
- Sampson, E. E. (1977). Psychology and the American ideal. *Journal of Personality and Social Psychology*, 35, 767–782.
- Sampson, E. E. (1978). Scientific paradigms and social values: Wanted—a scientific revolution. *Journal of Personality and Social Psychology*, 36, 1332–1343.
- Sampson, E. E. (1981). Cognitive psychology as ideology. *American Psychologist*, 36, 730–733.
- Sanchez-Burks, J. (2002). Protestant relational ideology and (in)attention to relational work settings. *Journal of Personality and Social Psychology*, 83, 919–929.
- Sanchez-Burks, J. (2005). Protestant relational ideology: The cognitive underpinnings and organizational implications of an American anomaly. In R. Kramer & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 26, pp. 265–305). Greenwich, CT: JAI Press.
- Sawyer, J. (1967). Dimensions of nations: Size, wealth, and politics. *American Journal of Sociology*, 73, 145–172.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50, 19–45.
- Schwartz, S. H., & Sagiv, G. (2000). Value consensus and importance: A cross-national study. *Journal of Cross-Cultural Psychology*, 31, 465–497.
- Silberman, I., Higgins, E. T., & Dweck, C. S. (2005). Religion and world change: Violence and terrorism versus peace. *Journal of Social Issues*, 61, 761–784.
- Smith, P. B., Bond, M. H., & Kağıtçıbaşı, Ç. (2006). *Understanding social psychology across cultures*. London: Sage.
- Steele, C. (1992, April). Race and the schooling of Black Americans. *Atlantic Monthly*, 4, 68–78.
- Steele, C. (1999, August). Thin ice: Stereotype threat and Black college students. *Atlantic Monthly*, 2, 44–54.
- Steinberg, S. (1997). Science and politics in the work of William Julius Wilson. *New Politics*, 6. Retrieved online at <http://www.wpunj.edu/newpol/issue22/steinb22.htm> on April 28, 2008.
- Strauss, C., & Quinn, N. (1997). *A cognitive theory of cultural meaning*. Cambridge, UK: Cambridge University Press.
- Swidler, A. (2001). *Talk of love*. Chicago: University of Chicago Press.
- Tarakeshwar, N., Stanton, J., & Pargament, K. I. (2003). Religion: An overlooked dimension of cross-cultural psychology. *Journal of Cross-Cultural Psychology*, 34, 377–394.
- Thomas, A., & Chess, S. (1977). *Temperament and development*. New York: Bruner/Mazel.
- Triandis, H. C. (1972). *The analysis of subjective culture*. New York: Wiley.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Triandis, H. C., Carnevale, P., Gelfand, M., Robert, C., Wasti, A., Probst, T., et al. (2001). Culture, personality and deception: A multilevel approach. *International Journal of Cross-Cultural Management*, 1, 73–90.
- Tsui, A. S., Nifadkar, S. S., & Ou, A. Y. (2007). Cross-national, cross-cultural organizational behavior research: Advances, gaps, and recommendations. *Journal of Management*, 33, 426–478.
- Van de Vijver, F. J. R., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousand Oaks, CA: Sage.

- Van de Vliert, E., Huang, X., & Parker, P. M. (2004). Do colder and hotter climates make richer societies more, but poorer societies less, happy and altruistic? *Journal of Environmental Psychology*, 24, 17–30.
- Wallace, A. F. C. (1966). *Religion: An anthropological view*. New York: Random House.
- Wan, C., Chiu, C-y., Peng, S., & Tam, K-p. (2007). Measuring cultures through intersubjective norms: Implications for predicting relative identification with two or more cultures. *Journal of Cross-Cultural Psychology*, 38, 213–226.
- Wan, C., Chiu, C-y., Tam, K-p., Lee, S-l., Lau, I. Y-m., & Peng, S-q. (2007). Perceived cultural importance and actual self-importance of values in cultural identification. *Journal of Personality and Social Psychology*, 92, 337–354.
- Watson, J. D., & Crick, F. H. C. (1953). A structure for deoxyribose nucleic acid. *Nature*, 171, 737–738.
- Weber, M. (1922/1963). *The sociology of religion*. Boston: Beacon.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67, 1049–1062.
- Wex, M. (2005). *Born to kvetch*. New York: St. Martin's Press.
- Wong, R. Y., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, 16, 429–434.
- Wrong, D. (1961). The oversocialized conception of man in modern sociology. *American Sociological Review*, 26, 183–193.
- Zebian, S., & Denny, J. P. (2001). Integrative cognitive style in Middle Eastern and Western groups. *Journal of Cross-Cultural Psychology*, 32, 58–75.
- Zou, X., Morris, M. W., & Benet-Martínez, V. (2008). Identity motives and cultural priming: Cultural (dis)identification in assimilative and contrastive responses. *Journal of Experimental Social Psychology*, 44, 1151–1159.
- Zou, X., Tam, K-P., Morris, M. W., Lee, S-l., Lau, I. Y-m., & Chiu, C-y. (2008). Expressing different selves or conforming to different ingroups? Unpacking influences of culture on social judgments. Under review.

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